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## WORK ASSIGNMENT PERFORMANCE WORK STATEMENT (PWS) CSRA

Contract No. EP-C-15-012 Work Assignment: WA-02-22

WACOR: Name: Nancy Parrotta

Office: Office of Groundwater and Drinking Water

Phone: 202-564-15260

**FAX:** 

E-mail: parrotta.nancy@epa.gov

Mail code: 4606M

Street Address: 1200 Pennsylvania Ave., NW

City, State, Zip: Washington, DC 20460

Alternate WACOR Name: Not applicable

Office:
Phone:
FAX:
E-mail:
Mail code:

**Street Address:** 

City, State, Zip Code

LOE: 350 hours

Period of Performance: Effective date through July 31, 2018

Title: Office of Ground Water and Drinking Water Strategic Planning and National Drinking Water Advisory Council Meeting Support

PWS Sections 2.1, 2.15, 2.16

#### I. PURPOSE:

The purpose of this work assignment is to support the Office of Ground Water and Drinking Water (OGWDW) in developing a five-year strategic plan for the Office of Ground Water and Drinking Water and to provide support for the National Drinking Water Advisory Council (NDWAC) meeting. The strategic plan will chart the course for advancing EPA's and the Office of Ground Water and Drinking Water's priorities and mission to protect human health and the environment.

Strategic planning is important to an organization because it provides a sense of direction and outlines measurable goals. Strategic planning is a tool that is useful for guiding day-to-day decisions and also evaluating progress and changing approaches when moving forward.

The Plan will identify the measurable environmental and human health outcomes that the public can expect in the near-term and over the next five years and will describe how the Office intends to achieve those results. The Plan represents a commitment to our core values of science, transparency and the rule of law in managing our program. This planning will also expand the impact of the OGWDW by ensuring complementary EPA offices and programs understand its mission and goals.

The contractor shall develop products and resources that support the ability of OGWDW to develop a final five year strategic plan.

#### II. BACKGROUND:

EPA's FY 2014 – 2018 Strategic Plan identifies five strategic goals to guide the Agency's work. The second goal, Protecting America's Waters specifically identifies achieving and maintaining standards and guidelines protective of human health in drinking water supplies, fish, shellfish, and recreational waters, and protect and sustainably manage drinking water resources as a goal. In support of the Agency's goal for Protecting America's Water, the mission of the OGWDW, together with states, tribes, and many partners, will protect public health by ensuring safe drinking water and protecting our ground water.

This mission will be accomplished by implementing the following principles:

- Prevention as an effective approach;
- Risk-based priority setting for new and existing regulations, based on sound science, quality data in reliable databases, and quality methods and standards;
- Partnership and involvement of public and private organizations, citizens, and communities;
- Flexibility and effectiveness in implementation while maintaining a national public health baseline;
- Accountability of all parties through public participation and accessible information; and

Results documented and presented clearly

#### **III. QA REQUIREMENTS:**

The tasks in this Work Assignment (WA) do not require environmental measurements. Consistent with the Agency's quality assurance (QA) requirements, the contractor does not need to supplement the approved Quality Management Plan (QMP) of the contract or prepare a Project-Specific Quality Assurance Project Plan (PQAPP).

#### IV. DETAILED TASK DESCRIPTION:

All direction under this WA will be provided as written technical direction from the WACOR as appropriate. If provided first as verbal technical direction to the contractor, it will be confirmed in writing within 5 calendar days, with a copy to the Contract Level Contracting Officer's Representative (CL COR) and the Contracting Officer (CO), and is subject to the limitations of the technical direction contract clause. Each initial deliverable shall be provided to the EPA WACOR and EPA CL COR in draft form for review and comment. The contractor shall incorporate WACOR review comments into revisions of the drafts. All drafts and final reports shall be approved by the WACOR.

The contractor shall perform the following tasks:

#### Task 0: Work Plan, Progress Evaluations, and Monthly Progress Reports

The contractor shall develop a work plan that describes how each task will be carried out. The work plan shall include a schedule, staffing plan, level of effort (LOE), and cost estimate for each task, the contractor's key assumptions on which staffing plan and budget are based, and qualifications of proposed staff. In addition, the workplan shall include the requirement that all electronic and information technology (EIT) and all EIT deliverables be Section 508 compliant in accordance with the policies referenced at <a href="http://www.epa.gov/accessibility/">http://www.epa.gov/accessibility/</a>. If a subcontractor(s) is proposed and subcontractors are outside the local metropolitan area, the contractor shall include information on plans to manage work and contract costs. In addition, the work plan shall specify that a Supplemental Project Specific Quality Assurance Project Plan (SQAPP) appending the Contract Level QAPP or a PQAPP is not required. This task also includes monthly progress and financial reports. Monthly financial reports must include a table with the invoice LOE and cost amount broken out by the tasks in this WA.

Deliverables: Work plan and monthly progress and financial reports.

### Task 1: Support for the Office of Ground Water and Drinking Water in Developing a Five Year Strategic Plan

To support these efforts, the contractor shall:

- 1. Prepare agendas for, and facilitate three meetings to be located in the Washington DC area (Foe planning purposes the meetings will last approximately 5 hours)
- 2. Produce written notes of each meeting
- 3. Participate in up to four one- hour conference calls with OGWDW during the development of the plan outline
- 4. Develop a strategic plan outline for the Office (For planning purposes this outline should be approximately 10 pages in length)

#### **Deliverables:**

- 1. Agendas for each meeting
- 2. Written notes of each meeting
- 3. Draft Outline of OGWDW Strategic Plan

## Task 2: Support to EPA OGWDW for the NDWAC meeting, which will be held December 11, 2017, through noon on December 13, 2017, in the Washington, DC, metro area.

The contractor shall provide support to EPA OGWDW for the NDWAC meeting, which will be held December 11, 2017, through noon on December 13, 2017, in the Washington, DC, metro area:

The NDWAC was established in accordance with the provisions of the Federal Advisory Committee Act (FACA), 5 U.S.C. App.2 § 9 (c). NDWAC is in the public interest and supports the EPA in performing its duties and responsibilities. Congress created the Council on December 16, 1974 as part of the Safe Water Drinking Act (SDWA) of 1974, P.L. 93-523, 42 U.S.C. 300j.5.

The NDWAC is charged to provide advice, information and recommendations on matters related to activities, functions, policies, and regulations of EPA under the SDWA. The advice and recommendations are then carefully considered by the EPA and may become a factor in the OGWDW strategic planning process.

The scope of this effort includes pre-meeting coordination with the Designated Federal Officer, note taking during the meeting, developing a draft meeting summary for EPA and developing a final summary that is 508 compliant.

- 1. Pre-meeting coordination with the Designated Federal Officer In support of the pre-meeting effort, the contractor shall meet with the DFO to determine that specific note tasking format to be used, develop templates for the notes, attendance, and daily summaries, and the types of discussion to be prioritized for recording in the notes. For planning purposes, this is expected to take 1 hour to complete.
- 2. Participation and note taking during the NDWAC Meeting The contractor shall provide two technical staff on-site for the 1 1/2—day meeting. During the proceedings, the contractor shall rotate note taking responsibilities to ensure full coverage. Prior to the proceedings on day 2, the contractor shall provide a written summary of the prior day's meeting.
- 3. Post Meeting Support Within 2-weeks of the NDWAC meeting, the contractor shall deliver a draft-meeting summary. This document shall include, at a minimum, a list of meeting participants (data to be collected by CSC), major issues discussed, and record of decisions made. Finalized summary for NDWAC meeting shall be 508 compliant.

#### **Deliverables:**

- 1. Daily summary reports (1)
- 2. Draft NDWAC meeting summary and Final NDWAC meeting summary

#### V. SCHEDULE/DELIVERABLE

- The contractor(s) shall send EPA all reports in accordance with the terms of the basic contract. All deliverables shall be submitted electronically on a CD or by email in Microsoft format (e.g., Word, Excel, Access, etc.), in addition to a hard copy submittal, as requested by the WACOR.
- The contractor shall provide a work plan as set out in the table below.
- All reports shall be provided first in draft form. Upon receipt of comment from the WACOR, the contractor shall revise the report and finalize the report accordingly.
- Finalized summary for NDWAC meeting shall be 508 compliant.

Due dates reflect the draft documents for WACOR consideration. Final deliverables are due no later than 15 days after receiving the WACOR's comments, unless the WACOR provides written technical direction indicating otherwise\*

\*Within five working days of receipt of EPA WACOR comments on Task 3, the contractor shall provide EPA with a final summary of the meeting.

#### **Other Deliverable Expectations:**

Draft Meeting Agenda 2 weeks before meeting Final Meeting Agenda 3 days before meeting

**Draft Meeting Summaries** 

1 week after meeting dates 3 days after receipt of WACOR(s) comment Final Meeting Summaries

<u>Deliverable</u>	Due No Later Than
Task 0: Work Plan, Progress Evaluations and Monthly Progress Reports  Work Plan  Monthly Progress and Financial Reports	According to Contract
Task 1: Support for the Office of Ground Water and Drinking Water in Developing a Five Year Strategic Plan  1. Prepare agendas for based on information provided by EPA, and facilitate three meetings to be located in the Washington DC area (For planning purposes the meetings will last approximately 5 hours)  2. Produce written notes of each meeting 3. Participate in up to four one-hour conference calls with OGWDW during the development of the plan outline  4. Assist in developing a strategic plan outline for the Office (For planning purposes this outline should be approximately 10 pages in length)	Upon Written Technical Direction

Task 2: Support to EPA OGWDW for the NDWAC meeting, which will be held December 11, 2017, through noon on December 13, 2017, in the Washington, DC, metro area.

- 1. Conduct pre-meeting coordination with the Designated Federal Officer. (For planning purposes, the premeeting coordination should last 1 hour).
- 2. Perform note taking during the meeting.
- 3. Develop a draft meeting summary for EPA and develop a final summary that is 508 compliant.

Upon written technical direction.

#### VI. REPORTING REQUIREMENTS

Monthly Progress Reports (including a progress evaluation discussion) Financial Reports

#### VII. GREEN MEETINGS AND CONFERENCES

The contractor shall follow the provision of EPA prescription 1523.703-1, *Acquisition of environmentally preferable meeting and conference services (May 2007)*, for the use of off-site commercial facilities for an EPA event, whether the event is a meeting, conference, training session, or other purpose. Environmental preferability is defined at FAR 2.101, and shall be used when soliciting quotes or offers for meeting/conference services on behalf of the Agency.

For purposes of these meetings, EPA will provide meeting space.

#### VIII. CONFERENCES AND WORKSHOPS

The contractor shall immediately alert the WACOR to any anticipated event under the work assignment which may result in incurring an estimated \$20,000 or more cost, funded by EPA, specific to that event, meeting, training, etc. Those costs would include travel of both prime and consultant personnel, planning and facilitation costs, including all outlays for conference preparation, AV and rental of venue costs, etc. The EPA WACOR will then prepare for approval the internal paperwork for the event and will provide it to the CO. The CO will advise the contractor when appropriate signatures have been obtained. At that point, effort can proceed for the event. If the event is being sponsored by another EPA organization, the organization providing the planning is responsible for the approval.

Any event which meets the definition of a "conference," with total net expenditures greater than \$20,000, is required to submit EPA Electronic Form 5170 and Form 5170-A (with cost

estimates/actuals). In the case the workflow system is down and CORs require emergency approval, they can submit EPA Form 5170 (PDF) (2pp, 93K) (with cost estimates) to conference@epa.gov.

## IX. SOFTWARE APPLICATION AND ACCESSIBILITY (SECTION 508 REHABILITATION ACT AND AMENDMENTS)

Software Application files, if delivered to the Government, shall conform to the requirements relating to accessibility as detailed to the 1998 amendments to the Rehabilitation Act, particularly, but not limited to, § 1194.21 Software applications and operating systems and § 1194.22 Web-based intranet and internet information and applications. See: http://www.section508.gov/

Preferred text format: MS Word, 8.0 or higher (Office 2007 or higher)

Preferred presentation format: Power Point, Office 2007 or higher Preferred graphics format: Each graphic is an individual GIF file

Preferred portable format: Adobe Acrobat, version 6.0

All delivered products intended for external EPA use will require 508 compliance.

#### QUALITY ASSURANCE SURVEILLANCE PLAN for WSD's Mission Support

#### **Quality Assurance Surveillance Plan**

The requirements contained in this WA are considered performance-based, focusing on the Agency's desired results and outcomes. The contractor shall be responsible for determining the most effective means by which these requirements will be fulfilled. In order to fulfill the requirements, the contractor shall design innovative processes and systems that can deliver the required services in a manner that will best meet the Agency's performance objectives. This performance-based requirement represents a challenge to the contractor to develop and apply innovative and efficient approaches for achieving results and meeting or exceeding the performance objectives, measures, and standards described below. The Contractor's performance will be reflected in the positive or negative evaluation offered by the Agency in the Contractor Performance Evaluation (CPE) which is evaluated annually (per the "Contractor Performance Evaluation" clause in the contract). The WACOR shall submit a complete annual review of the areas outlined in the Quality Assurance Surveillance Plan (QASP), included in the contract, which will then be utilized by the CLCOR in preparing the overall evaluations submitted annually in response to the Contractor Performance Evaluation requirements in the contract.

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## WORK ASSIGNMENT PERFORMANCE WORK STATEMENT (PWS) CSRA

#### Amendment 2

Contract No. EP-C-15-012 Work Assignment: WA-02-22

WACOR: Name: Debbie Newberry

Office: Office of Groundwater and Drinking Water

Phone: 202-564-1415

E-mail: newberry.debbie@epa.gov

Mail code: 4608T

Street Address: 1200 Pennsylvania Ave., NW City, State, Zip: Washington, DC 20460

**Alternate WACOR** 

Name: Ashley Greene

Office: Office of Groundwater and Drinking Water

Phone: 202-566-1738

E-mail: greene.ashley@epa.gov

Mail code: 4608T

Street Address: 1200 Pennsylvania Ave., NW City, State, Zip: Washington, DC 20460

LOE: 113 hours

Period of Performance: Effective date through July 31, 2018

Title: Office of Ground Water and Drinking Water Strategic Planning and National Drinking Water Advisory Council Meeting Support

PWS Sections 2.1, 2.15, 2.16

#### I. PURPOSE:

The purpose of this amendment is to add Task 3 and Task 4 to support the Office of Ground Water and Drinking Water on priority issues related to addressing PFAS (per- and polyfluoroalkyl substances) challenges in drinking water and at contaminated sites for strategic planning purposes. Task 3 will provide expert support by both attending and assisting EPA in the structural development of a two-day meeting on May 22-23, 2018, to engage national leaders in discussing strategic opportunities to:

- 1. Share information among participants on ongoing efforts to provide tools to characterize the risks from PFAS and to reduce exposure;
- 2. Identify near-term actions that are needed to address challenges currently facing states and local communities;

Develop risk communication strategies to help address public concerns with PFAS. Task 4 will provide

expert support to the EPA by assisting in the development of a PFAS Management Plan for the Agency.

#### II. BACKGROUND:

No Change.

#### III. QA REQUIREMENTS:

No Change.

#### IV. DETAILED TASK DESCRIPTION:

All direction under this WA will be provided as written technical direction from the WACOR as appropriate. If provided first as verbal technical direction to the contractor, it will be confirmed in writing within 5 calendar days, with a copy to the Contract Level Contracting Officer's Representative (CL COR) and the Contracting Officer (CO), and is subject to the limitations of the technical direction contract clause. Each initial deliverable shall be provided to the EPA WACOR and EPA CL COR in draft form for review and comment. The contractor shall incorporate WACOR review comments into revisions of the drafts. All drafts and final reports shall be approved by the WACOR.

The contractor shall perform the following tasks:

#### Task 0: Work Plan, Progress Evaluations, and Monthly Progress Reports

No Change.

## Task 1: Support for the Office of Ground Water and Drinking Water in Developing a Five Year Strategic Plan

1. No Change.

## Task 2: Support to EPA OGWDW for the NDWAC meeting, which will be held December 11, 2017, through noon on December 13, 2017, in the Washington, DC, metro area.

No Change.

### Task 3: Support for the Office of Ground Water and Drinking Water in engaging national experts and community leaders on PFAS challenges for strategic planning purposes

To support these efforts, the contractor shall:

- 1. Provide expert to offer technical support and upfront planning assistance (not logistical) to the EPA prior to national leader meeting and community engagement sessions including:
  - a. Assisting in the development and distribution of PFAS briefing documents and discussion questions on the following topics: 1) risk communication; 2) monitoring and methodology; 3) human health impacts and toxicity; and 4) treatment and reducing exposures.
  - b. Assisting in development of draft agendas, meeting materials, and meeting frameworks for the national leader meeting and other engagement sessions.
- 2. Provide expert to attend and provide professional support (not logistical) for meeting to engage

federal, state, tribe, and other partners on priority issues related to addressing PFAS challenges in drinking water and at contaminated sites. For planning purposes, the meeting will be held May 22, 2018 (full day – 9 hours) and May 23, 2018 (half day – 5 hours) in Washington, DC.

- 3. While EPA is not seeking consolidated group recommendations or direction from meeting participants, the contractor shall develop, in concert with EPA, an analysis of participant input from the meeting including:
  - a. Developing a thematic synthesis of discussions.
  - b. Undertaking further synthesis if materials are submitted by participants post meeting.
  - c. Further engaging with participants, as needed, depending on meeting outcomes.

#### **Deliverables:**

- 1. Review of meeting agendas, materials, frameworks, and discussion questions.
- 2. Written meeting and post-input synthesis analysis.

#### Other Deliverable Expectations:

Draft Meeting Synthesis 1 week after meeting date

Final Meeting Synthesis 3 days after receipt of WACOR(s) comments

## Task 4: Support for the Office of Ground Water and Drinking Water in developing a PFAS Management Plan

As a follow-up to the national leader meeting and community engagement sessions, the contractor shall:

- 1. Prepare a draft thematic synthesis of the meeting discussions based on overarching themes from all meeting notes (for planning purposes, this should be no longer than 5 pages).
- 2. Develop, as needed, a summary of post-meeting perspectives submitted by expert participants.
- 3. Work with OGWDW to develop an outline for a draft PFAS Management Plan.
- 4. Work with OGWDW to draft PFAS Management Plan (For planning purposes, the plan should be approximately 10-15 pages).

#### **Deliverables:**

- 1. Thematic synthesis of meetings
- 2. Summary of post-meeting participant submittals, as needed
- 3. Develop an outline for the PFAS Management Plan
- 4. Develop draft PFAS Management Plan

#### V. CONFERENCES AND WORKSHOPS

The contractor shall immediately alert the WACOR to any anticipated event under the work assignment which may result in incurring an estimated \$20,000 or more cost, funded by EPA, specific to that event, meeting, training, etc. Those costs would include travel of both prime and consultant personnel, planning and facilitation costs, including all outlays for conference preparation, AV and rental of venue costs, etc. The EPA WACOR will then prepare for approval the internal paperwork for the event and

will provide it to the CO. The CO will advise the contractor when appropriate signatures have been obtained. At that point, effort can proceed for the event. If the event is being sponsored by another EPA organization, the organization providing the planning is responsible for the approval.

Any event which meets the definition of a "conference," with total net expenditures greater than \$20,000, is required to submit EPA Electronic Form 5170 and Form 5170-A (with cost estimates/actuals). In the case the workflow system is down and CORs require emergency approval, they can submit EPA Form 5170 (PDF) (2pp, 93K) (with cost estimates) to conference@epa.gov.

#### VI. SCHEDULE/DELIVERABLE

- The contractor(s) shall send EPA all reports in accordance with the terms of the basic contract. All deliverables shall be submitted electronically on a CD or by email in Microsoft format (e.g., Word, Excel, Access, etc.), in addition to a hard copy submittal, as requested by the WACOR.
- The contractor shall provide a work plan as set out in the table below.
- All reports shall be provided first in draft form. Upon receipt of comment from the WACOR, the contractor shall revise the report and finalize the report accordingly.
- Finalized summary for NDWAC meeting shall be 508 compliant.

Due dates reflect the draft documents for WACOR consideration. Final deliverables are due no later than 15 days after receiving the WACOR's comments, unless the WACOR provides written technical direction indicating otherwise\*

\*Within five working days of receipt of EPA WACOR comments on Task 3, the contractor shall provide EPA with a final summary of the meeting.

<u>Deliverable</u>	Due No Later Than
Task 0: Work Plan, Progress Evaluations and Monthly Progress Reports	No Change
Work Plan	
Monthly Progress and Financial Reports	

Water	1: Support for the Office of Ground and Drinking Water in Developing a	No Change
<ol> <li>2.</li> </ol>	Prepare agendas for based on information provided by EPA, and facilitate three meetings to be located in the Washington DC area (For planning purposes the meetings will last approximately 5 hours)  Produce written notes of each meeting Participate in up to four one- hour conference calls with OGWDW during the development of the plan outline	
4.	Assist in developing a strategic plan outline for the Office (For planning purposes this outline should be approximately 10 pages in length)	
NDW. Decen Decen	2: Support to EPA OGWDW for the AC meeting, which will be held nber 11, 2017, through noon on nber 13, 2017, in the Washington, DC,	No Change
<b>metro</b> 1.	Area. Conduct pre-meeting coordination with the Designated Federal Officer. (For planning purposes, the pre-meeting coordination should last 1 hour).	
	Perform note taking during the meeting.  Develop a draft meeting summary for EPA and develop a final summary that is 508 compliant.	

Water nation PFAS purpo 1.	3: Support for the Office of Ground r and Drinking Water in engaging nal experts and community leaders on challenges for strategic planning oses  Provide advice and upfront planning assistance to the EPA prior to national leader meeting and community engagement sessions  Attend and provide professional support for meeting to engage federal,	Upon written technical direction.
	state, tribe, and other expert partners on priority issues related to addressing PFAS challenges in drinking water and at contaminated sites. The meeting will be held May 22, 2018 (full day – 9 hours) and May 23, 2018 (half day – 5 hours) in Washington, DC.	
3.	Develop, in concert with EPA, an analysis of participant input from the meeting.	
4.	Participate in up to six one-hour conference calls with EPA during the development of the pre-meeting planning.	
	4: Support for the Office of Ground r and Drinking Water in developing a	Upon written technical direction.
	Management Plan	
1.	Prepare a draft thematic synthesis of the meeting discussions based on overarching themes from the meeting notes (for planning purposes, this should be no longer than 5 pages).	
2.	Develop a summary of post-meeting perspectives submitted by expert	

#### VII. REPORTING REQUIREMENTS

Plan.

participants, as needed.

3. Assist OGWDW in developing an outline and draft PFAS Management

Monthly Progress Reports (including a progress evaluation discussion) Financial Reports

#### VIII. GREEN MEETINGS AND CONFERENCES

The contractor shall follow the provision of EPA prescription 1523.703-1, *Acquisition of environmentally preferable meeting and conference services (May 2007)*, for the use of off-site commercial facilities for an EPA event, whether the event is a meeting, conference, training session, or other purpose. Environmental preferability is defined at FAR 2.101, and shall be used when soliciting quotes or offers for meeting/conference services on behalf of the Agency.

For purposes of these meetings, EPA will provide meeting space.

#### IX. CONFERENCES AND WORKSHOPS

The contractor shall immediately alert the WACOR to any anticipated event under the work assignment which may result in incurring an estimated \$20,000 or more cost, funded by EPA, specific to that event, meeting, training, etc. Those costs would include travel of both prime and consultant personnel, planning and facilitation costs, including all outlays for conference preparation, AV and rental of venue costs, etc. The EPA WACOR will then prepare for approval the internal paperwork for the event and will provide it to the CO. The CO will advise the contractor when appropriate signatures have been obtained. At that point, effort can proceed for the event. If the event is being sponsored by another EPA organization, the organization providing the planning is responsible for the approval.

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Software Application files, if delivered to the Government, shall conform to the requirements relating to accessibility as detailed to the 1998 amendments to the Rehabilitation Act, particularly, but not limited to, § 1194.21 Software applications and operating systems and § 1194.22 Web-based intranet and internet information and applications. See: http://www.section508.gov/

Preferred text format: MS Word, 8.0 or higher (Office 2007 or higher)

Preferred presentation format: Power Point, Office 2007 or higher Each graphic is an individual GIF file

Preferred portable format: Adobe Acrobat, version 6.0

All delivered products intended for external EPA use will require 508 compliance.

#### for WSD's Mission Support

#### **Quality Assurance Surveillance Plan**

The requirements contained in this WA are considered performance-based, focusing on the Agency's desired results and outcomes. The contractor shall be responsible for determining the most effective means by which these requirements will be fulfilled. In order to fulfill the requirements, the contractor shall design innovative processes and systems that can deliver the required services in a manner that will best meet the Agency's performance objectives. This performance-based requirement represents a challenge to the contractor to develop and apply innovative and efficient approaches for achieving results and meeting or exceeding the performance objectives, measures, and standards described below. The Contractor's performance will be reflected in the positive or negative evaluation offered by the Agency in the Contractor Performance Evaluation (CPE) which is evaluated annually (per the "Contractor Performance Evaluation" clause in the contract). The WACOR shall submit a complete annual review of the areas outlined in the Quality Assurance Surveillance Plan (QASP), included in the contract, which will then be utilized by the CLCOR in preparing the overall evaluations submitted annually in response to the Contractor Performance Evaluation requirements in the contract.

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## WORK ASSIGNMENT PERFORMANCE WORK STATEMENT (PWS) CSRA

#### **Amendment 3**

Contract No. EP-C-15-012 Work Assignment: WA-02-22

WACOR: Name: Debbie Newberry

Office: Office of Groundwater and Drinking Water

Phone: 202-564-1415

E-mail: newberry.debbie@epa.gov

Mail code: 4608T

Street Address: 1200 Pennsylvania Ave., NW

City, State, Zip: Washington, DC 20460

**Alternate WACOR** 

Name: Ashley Greene

Office: Office of Groundwater and Drinking Water

Phone: 202-566-1738

E-mail: greene.ashley@epa.gov

Mail code: 4608T

Street Address: 1200 Pennsylvania Ave., NW

City, State, Zip: Washington, DC 20460

LOE: hours

Period of Performance: Effective date through July 31, 2018

Title: Office of Ground Water and Drinking Water Strategic Planning and National Drinking Water Advisory Council Meeting Support

PWS Sections 2.1, 2.15, 2.16

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#### I. PURPOSE:

The purpose of this amendment is to revise Tasks 3 and Task 4 to support the Office of Ground Water and Drinking Water (OGWDW) on priority issues related to addressing PFAS (per- and polyfluoroalkyl substances) challenges in drinking water and at contaminated sites for strategic planning purposes. Task 3 will provide expert support by assisting OGWDW in the structural development of engagements to engage national and community leaders, including attending and providing a synthesis of a two-day summit on May 22-23, 2018, to engage national leaders in discussing strategic opportunities to:

- 1. Share information among participants on ongoing efforts to provide tools to characterize the risks from PFAS and to reduce exposure;
- 2. Identify near-term actions that are needed to address challenges currently facing states and local

communities:

3. Develop risk communication strategies to help address public concerns with PFAS. Task 4 will provide expert support to OGWDW by assisting in the organization and, if needed, the development of a PFAS Management Plan for the Agency.

#### II. BACKGROUND:

No Change.

#### **III. QA REQUIREMENTS:**

No Change.

#### IV. DETAILED TASK DESCRIPTION:

All direction under this WA will be provided as written technical direction from the WACOR as appropriate. If provided first as verbal technical direction to the contractor, it will be confirmed in writing within 5 calendar days, with a copy to the Contract Level Contracting Officer's Representative (CL COR) and the Contracting Officer (CO), and is subject to the limitations of the technical direction contract clause. Each initial deliverable shall be provided to the EPA WACOR and EPA CL COR in draft form for review and comment. The contractor shall incorporate WACOR review comments into revisions of the drafts. All drafts and final reports shall be approved by the WACOR.

The contractor shall perform the following tasks:

#### Task 0: Work Plan, Progress Evaluations, and Monthly Progress Reports

No Change.

## Task 1: Support for the Office of Ground Water and Drinking Water in Developing a Five Year Strategic Plan

No Change.

Task 2: Support to EPA OGWDW for the NDWAC meeting, which will be held December 11, 2017, through noon on December 13, 2017, in the Washington, DC, metro area.

No Change.

## Task 3: Support for the Office of Ground Water and Drinking Water in engaging national and community leaders on PFAS challenges for strategic planning purposes

To support these efforts, the contractor shall:

- 1. Provide expert to offer framework recommendations and technical support (not logistical) to OGWDW prior to national leader summit and community engagement sessions including:
  - a. Assisting in the development of objectives and format, draft agendas, discussion questions, and briefing documents/materials for the PFAS national leader summit and other community engagement sessions. The summit will be focused on the following

- topics: 1) identifying PFAS in communities; 2) solutions to address PFAS; 3) communicating PFAS.
- b. Participating in EPA-led preparatory sessions with relevant stakeholders in advance of the summit.
- 2. Provide two experts to convene, moderate and provide professional support (not logistical), as needed, for national leader summit to engage federal, state, tribe, and other partners on priority issues related to addressing PFAS challenges in drinking water and at contaminated sites. For planning purposes, the summit will be held May 22, 2018 (full day 9 hours) and May 23, 2018 (half day 5 hours) in Washington, DC.
- 3. While EPA is not seeking consolidated group recommendations or direction from participants, the contractor shall develop, in concert with EPA, an analysis of participant input from the summit including:
  - a. Following Day 1 (May 22, 2018) of summit, providing a brief summary of participant input and discussion topics and working with OGWDW to develop format and material for Day 2 (May 23, 2018) summit framework and discussions.
  - b. Developing a synthesis of overall summit discussions, input, and actions based on overarching themes from all summit notes (for planning purposes, this should be no longer than 5-10 pages).
  - c. Undertaking further synthesis if materials are submitted by participants post summit.
  - d. Further engaging with participants, as needed, depending on summit outcomes.

#### **Deliverables:**

- 1. Review of national leader summit and community engagement sessions objectives, format, agendas, discussion questions, and other materials.
- 2. Day 1 (May 22, 2018) national leader summit summary and outline for Day 2 (May 23, 2018) summit structure/format.
- 3. Written overall summit and post-input synthesis analysis.

#### **Other Deliverable Expectations:**

Day 1 Summit Summary May 22, 2018

Draft Summit Synthesis 2 weeks after meeting date

Final Summit Synthesis 7 days after receipt of WACOR(s) comments

## Task 4: Support for the Office of Ground Water and Drinking Water in developing a PFAS Management Plan

Utilizing information and input obtained through all stakeholder comments (as provided by EPA), the contractor shall:

1. Work with OGWDW to develop an outline for a draft PFAS Management Plan (for planning purposes, the outline should be no longer than 5 pages).

2. Work with OGWDW to draft PFAS Management Plan (for planning purposes, the plan should be approximately 10-15 pages).

#### **Deliverables:**

- 1. Develop an outline for the PFAS Management Plan
- 2. Develop draft PFAS Management Plan

#### V. CONFERENCES AND WORKSHOPS

The contractor shall immediately alert the WACOR to any anticipated event under the work assignment which may result in incurring an estimated \$20,000 or more cost, funded by EPA, specific to that event, meeting, training, etc. Those costs would include travel of both prime and consultant personnel, planning and facilitation costs, including all outlays for conference preparation, AV and rental of venue costs, etc. The EPA WACOR will then prepare for approval the internal paperwork for the event and will provide it to the CO. The CO will advise the contractor when appropriate signatures have been obtained. At that point, effort can proceed for the event. If the event is being sponsored by another EPA organization, the organization providing the planning is responsible for the approval.

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- The contractor shall provide a work plan as set out in the table below.
- All reports shall be provided first in draft form. Upon receipt of comment from the WACOR, the contractor shall revise the report and finalize the report accordingly.
- Finalized summary for NDWAC meeting shall be 508 compliant.

Due dates reflect the draft documents for WACOR consideration. Final deliverables are due no later than 15 days after receiving the WACOR's comments, unless the WACOR provides written technical direction indicating otherwise\*

\*Within five working days of receipt of EPA WACOR comments on Task 3, the contractor shall provide EPA with a final summary of the meeting.

Deliverable	Due No Later Than
<u>Benverable</u>	Due no Eater Than

Task 0: Work Plan, Progress Evaluations and Monthly Progress Reports	No Change
Work Plan	
Monthly Progress and Financial Reports	
Task 1: Support for the Office of Ground Water and Drinking Water in Developing a Five Year Strategic Plan  1. Prepare agendas for based on information provided by EPA, and facilitate three meetings to be located in the Washington DC area (For planning purposes the meetings will last approximately 5 hours)  2. Produce written notes of each meeting 3. Participate in up to four one- hour conference calls with OGWDW during the development of the plan outline  4. Assist in developing a strategic plan outline for the Office (For planning purposes this outline should be approximately 10 pages in length)	No Change
Task 2: Support to EPA OGWDW for the NDWAC meeting, which will be held December 11, 2017, through noon on December 13, 2017, in the Washington, DC, metro area.  1. Conduct pre-meeting coordination with the Designated Federal Officer. (For planning purposes, the premeeting coordination should last 1 hour).  2. Perform note taking during the meeting.  3. Develop a draft meeting summary for EPA and develop a final summary that is 508 compliant.	No Change

# Task 3: Support for the Office of Ground Water and Drinking Water in engaging national and community leaders on PFAS challenges for strategic planning purposes

- 1. Provide framework recommendations and technical support to OGWDW prior to national leader summit and community engagement sessions.
- 2. Attend and provide professional support for meeting to engage federal, state, tribe, and other expert partners on priority issues related to addressing PFAS challenges in drinking water and at contaminated sites. The summit will be held May 22, 2018 (full day 9 hours) and May 23, 2018 (half day 5 hours) in Washington, DC.
- 3. Develop brief summary of Day 1 (May 22, 2018) of national leader summit and provide outline of recommended structure/format for Day 2 (May 23, 2018) of summit.
- 4. Prepare a draft synthesis of the overall summit discussions based on overarching themes from all written notes.
- 5. Participate in up to 15 one-hour conference calls with EPA and other stakeholders during the development of the pre-summit and community engagements planning.

Upon written technical direction.

Task 4: Support for the Office of Ground
Water and Drinking Water in developing a
PFAS Management Plan

- 1. Assist OGWDW in developing outline for the PFAS Management Plan (for planning purposes, assume 2 drafts).
- 2. Assist, if needed, OGWDW in developing a draft of the PFAS Management Plan (for planning purposes, assume 2 drafts).
- 3. Participate in up to 8 one-hour conference calls with EPA during the development of the PFAS Management Plan.

Upon written technical direction.

#### VII. REPORTING REQUIREMENTS

Monthly Progress Reports (including a progress evaluation discussion) Financial Reports

#### VIII. GREEN MEETINGS AND CONFERENCES

The contractor shall follow the provision of EPA prescription 1523.703-1, Acquisition of environmentally preferable meeting and conference services (May 2007), for the use of off-site commercial facilities for an EPA event, whether the event is a meeting, conference, training session, or other purpose. Environmental preferability is defined at FAR 2.101, and shall be used when soliciting quotes or offers for meeting/conference services on behalf of the Agency.

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Preferred text format: MS Word, 8.0 or higher (Office 2007 or higher)

Preferred presentation format: Power Point, Office 2007 or higher Preferred graphics format: Each graphic is an individual GIF file

Preferred portable format: Adobe Acrobat, version 6.0

All delivered products intended for external EPA use will require 508 compliance.

## QUALITY ASSURANCE SURVEILLANCE PLAN for WSD's Mission Support

#### **Quality Assurance Surveillance Plan**

The requirements contained in this WA are considered performance-based, focusing on the Agency's desired results and outcomes. The contractor shall be responsible for determining the most effective means by which these requirements will be fulfilled. In order to fulfill the requirements, the contractor shall design innovative processes and systems that can deliver the required services in a manner that will best meet the Agency's performance objectives. This performance-based requirement represents a challenge to the contractor to develop and apply innovative and efficient approaches for achieving results and meeting or exceeding the performance objectives, measures, and standards described below. The Contractor's performance will be reflected in the positive or negative evaluation offered by the Agency in the Contractor Performance Evaluation (CPE) which is evaluated annually (per the "Contractor Performance Evaluation" clause in the contract). The WACOR shall submit a complete annual review of the areas outlined in the Quality Assurance Surveillance Plan (QASP), included in the contract, which will then be utilized by the CLCOR in preparing the overall evaluations submitted annually in response to the Contractor Performance Evaluation requirements in the contract.

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## WORK ASSIGNMENT PERFORMANCE WORK STATEMENT (PWS) CSRA

#### Amendment 5

Contract No. EP-C-15-012 Work Assignment: WA-02-22

WACOR: Name: Debbie Newberry

Office: Office of Groundwater and Drinking Water

Phone: 202-564-1415

E-mail: newberry.debbie@epa.gov

Mail code: 4608T

Street Address: 1200 Pennsylvania Ave., NW City, State, Zip: Washington, DC 20460

**Alternate WACOR** 

Name: Ashley Greene

Office: Office of Groundwater and Drinking Water

Phone: 202-566-1738

E-mail: greene.ashley@epa.gov

Mail code: 4608T

Street Address: 1200 Pennsylvania Ave., NW City, State, Zip: Washington, DC 20460

LOE: hours: 435

Period of Performance: Effective date through July 31, 2018

Title: Office of Ground Water and Drinking Water Strategic Planning and National Drinking Water Advisory Council Meeting Support

PWS Sections 2.1, 2.15, 2.16

#### I. PURPOSE:

The purpose of this amendment is to add Task 5 and 6 to support the Office of Ground Water and Drinking Water (OGWDW) on priority issues related to addressing PFAS (per- and polyfluoroalkyl substances) and other drinking water contaminant challenges for strategic planning purposes. Task 5 will provide expert support to OGWDW by assisting in the development of PFAS and other drinking water contaminant risk communication information. Task 6 will provide support by assisting OGWDW in the synthesis of sessions to engage communities throughout the country on PFAS and other drinking water contaminant issues, including attending and providing support at select community engagement sessions.

#### II. BACKGROUND:

Work under Tasks 5 and 6 of this PWS will be started during this Option Period 2 (as detailed in Section IV). EPA anticipates providing additional LOE and completing work within these tasks during Option Period 3 to include all the following:

## Support for the Office of Ground Water and Drinking Water in developing PFAS or other drinking water contaminant risk communication information

To support these efforts, the contractor shall:

- 1. Provide an expert to, in concert with EPA, offer guidance and recommendations on PFAS or other drinking water contaminant risk communication including:
  - a. Developing a strategy for the development of risk communication messages.
  - b. Providing results of research and implementation of risk communication messaging strategy.
  - c. Developing risk communication messages based on implementation of risk communication messaging strategy.
  - d. Developing written, graphical, or electronic risk communication materials (e.g., fact sheets, infographics, videos) based on identified risk communication messages to address public concerns with PFAS or other drinking water contaminants.

#### **Deliverables:**

- 1. Written strategy on developing risk communication messages
- 2. Written results following implementation of risk communication messaging strategy
- 3. Develop risk communication messages (for planning purpose, assume up to 5 topics areas)
- 4. Develop risk communication materials (for planning purposes, assume up to 5 materials)

## Support for the Office of Ground Water and Drinking Water in engaging communities throughout the country on PFAS and other drinking water contaminant challenges

To support these efforts, the contractor shall:

- 1. As needed, provide 1 to 2 people to attend and provide professional support for community engagement sessions. There will be up to seven 1 to 2-day community engagement sessions to be held from the June through September 2018 in various locations throughout the country (for planning purposes, assume travel for four sessions and one person per session).
- 2. While EPA is not seeking consolidated group recommendations or direction from the community engagement sessions, the contractor shall develop for each individual community engagement session, in concert with EPA, a synthesis of discussions, input, and actions based on overarching themes from notes (provided by EPA) for each community engagement session (for planning purposes, these should each be no longer than 5 pages).

#### **Deliverables:**

1. For up to seven community engagement sessions, individual written synthesis analysis.

#### **Other Deliverable Expectations:**

Community Engagements Syntheses: 2 weeks after meeting dates or receipt of meeting notes

#### **III. QA REQUIREMENTS:**

No Change.

#### IV. DETAILED TASK DESCRIPTION:

All direction under this WA will be provided as written technical direction from the WACOR as appropriate. If provided first as verbal technical direction to the contractor, it will be confirmed in writing within 5 calendar days, with a copy to the Contract Level Contracting Officer's Representative (CL COR) and the Contracting Officer (CO), and is subject to the limitations of the technical direction contract clause. Each initial deliverable shall be provided to the EPA WACOR and EPA CL COR in draft form for review and comment. The contractor shall incorporate WACOR review comments into revisions of the drafts. All drafts and final reports shall be approved by the WACOR.

The contractor shall perform the following tasks:

Task 0: Work Plan, Progress Evaluations, and Monthly Progress Reports

No Change.

Task 1: Support for the Office of Ground Water and Drinking Water in Developing a Five Year Strategic Plan

No Change.

Task 2: Support to EPA OGWDW for the NDWAC meeting, which will be held December 11, 2017, through noon on December 13, 2017, in the Washington, DC, metro area.

No Change.

Task 3: Support for the Office of Ground Water and Drinking Water in engaging national and community leaders on PFAS challenges for strategic planning purposes

No Change.

Task 4: Support for the Office of Ground Water and Drinking Water in developing a PFAS Management Plan

No Change.

Task 5: Support for the Office of Ground Water and Drinking Water in developing PFAS or other drinking water contaminant risk communication information

LOE: hours: 250

To support these efforts, the contractor shall:

- 1. Provide an expert to, in concert with EPA, offer guidance and recommendations on PFAS or other drinking water contaminant risk communication including:
  - a. Developing a strategy for the development of risk communication messages.
  - b. Providing results of research and implementation of risk communication messaging strategy.
  - c. Developing risk communication messages based on implementation of risk communication messaging strategy.

#### **Deliverables:**

1. Written strategy on developing risk communication messages

## Task 6: Support for the Office of Ground Water and Drinking Water in engaging communities throughout the country on PFAS and other drinking water contaminant challenges

LOE: hours: 160

To support these efforts, the contractor shall:

- 1. As needed, provide 1 to 2 people to attend and provide professional support for community engagement sessions. There will be up to three 1 to 2-day community engagement sessions to be held from June through July 2018 in various locations throughout the country (for planning purposes, assume travel for two sessions and one person per session).
- 2. While EPA is not seeking consolidated group recommendations or direction from the community engagement sessions, the contractor shall develop for each individual community engagement session, in concert with EPA, a synthesis of discussions, input, and actions based on overarching themes from notes (provided by EPA) for each community engagement session (for planning purposes, these should each be no longer than 5 pages).

#### **Deliverables:**

1. For up to three community engagement sessions, individual written synthesis analysis.

#### Other Deliverable Expectations:

Community Engagements Syntheses: 2 weeks after meeting dates or receipt of meeting notes

#### V. CONFERENCES AND WORKSHOPS

The contractor shall immediately alert the WACOR to any anticipated event under the work assignment which may result in incurring an estimated \$20,000 or more cost, funded by EPA, specific to that event, meeting, training, etc. Those costs would include travel of both prime and consultant personnel,

planning and facilitation costs, including all outlays for conference preparation, AV and rental of venue costs, etc. The EPA WACOR will then prepare for approval the internal paperwork for the event and will provide it to the CO. The CO will advise the contractor when appropriate signatures have been obtained. At that point, effort can proceed for the event. If the event is being sponsored by another EPA organization, the organization providing the planning is responsible for the approval.

Any event which meets the definition of a "conference," with total net expenditures greater than \$20,000, is required to submit EPA Electronic Form 5170 and Form 5170-A (with cost estimates/actuals). In the case the workflow system is down and CORs require emergency approval, they can submit EPA Form 5170 (PDF) (2pp, 93K) (with cost estimates) to conference@epa.gov.

#### VI. SCHEDULE/DELIVERABLE

- The contractor(s) shall send EPA all reports in accordance with the terms of the basic contract. All deliverables shall be submitted electronically on a CD or by email in Microsoft format (e.g., Word, Excel, Access, etc.), in addition to a hard copy submittal, as requested by the WACOR.
- The contractor shall provide a work plan as set out in the table below.
- All reports shall be provided first in draft form. Upon receipt of comment from the WACOR, the contractor shall revise the report and finalize the report accordingly.
- Finalized summary for NDWAC meeting shall be 508 compliant.

Due dates reflect the draft documents for WACOR consideration. Final deliverables are due no later than 15 days after receiving the WACOR's comments, unless the WACOR provides written technical direction indicating otherwise\*

\*Within five working days of receipt of EPA WACOR comments on Task 3, the contractor shall provide EPA with a final summary of the meeting.

<u>Deliverable</u>	<b>Due No Later Than</b>
Task 0: Work Plan, Progress Evaluations and Monthly Progress Reports	No Change
Work Plan	
Monthly Progress and Financial Reports	

7F 1	1. C	
	1: Support for the Office of Ground	No Change
	and Drinking Water in Developing a	
	Year Strategic Plan	
1.	Prepare agendas for based on	
	information provided by EPA, and	
	facilitate three meetings to be located	
	in the Washington DC area (For	
	planning purposes the meetings will	
•	last approximately 5 hours)	
	Produce written notes of each meeting	
3.	Participate in up to four one-hour	
	conference calls with OGWDW	
	during the development of the plan	
	outline	
4.	Assist in developing a strategic plan	
	outline for the Office (For planning	
	purposes this outline should be	
	approximately 10 pages in length)	
	2: Support to EPA OGWDW for the	No Change
NDW.	AC meeting, which will be held	The Change
Decen	nber 11, 2017, through noon on	
Decen	nber 13, 2017, in the Washington, DC,	
metro	area.	
1.	Conduct pre-meeting coordination	
	with the Designated Federal Officer.	
	(For planning purposes, the pre-	
	meeting coordination should last 1	
	hour).	
2.	Perform note taking during the	
	meeting.	
3.	Develop a draft meeting summary for	
	EPA and develop a final summary that	
	is 508 compliant.	

# Task 3: Support for the Office of Ground Water and Drinking Water in engaging national and community leaders on PFAS challenges for strategic planning purposes

- 1. Provide framework recommendations and technical support to OGWDW prior to national leader summit and community engagement sessions.
- 2. Attend and provide professional support for meeting to engage federal, state, tribe, and other expert partners on priority issues related to addressing PFAS challenges in drinking water and at contaminated sites. The summit will be held May 22, 2018 (full day 9 hours) and May 23, 2018 (half day 5 hours) in Washington, DC.
- 3. Develop brief summary of Day 1 (May 22, 2018) of national leader summit and provide outline of recommended structure/format for Day 2 (May 23, 2018) of summit.
- 4. Prepare a draft synthesis of the overall summit discussions based on overarching themes from all written notes.
- 5. Participate in up to 15 one-hour conference calls with EPA and other stakeholders during the development of the pre-summit and community engagements planning.

Upon written technical direction.

Tools A. Commont for the Office of County	
Task 4: Support for the Office of Ground	Upon written technical direction.
Water and Drinking Water in developing a	
PFAS Management Plan	
1. Assist OGWDW in developing outline	
for the PFAS Management Plan (for	
planning purposes, assume 2 drafts).	
2. Assist, if needed, OGWDW in	
developing a draft of the PFAS	
Management Plan (for planning	
purposes, assume 2 drafts).	
3. Participate in up to 8 one-hour	
conference calls with EPA during the	
development of the PFAS	
Management Plan.	
Task 5: Support for the Office of Ground	Upon written technical direction.
Water and Drinking Water in developing	opon witten common direction.
PFAS and other drinking water	
contaminant risk communication	
information	
1. Develop risk communication	
messaging strategy.	
2. Participate in up to 5 one-hour	
conference calls with EPA during the	
development of the strategy, strategy	
implementation, and message	
development.	
Task 6: Support for the Office of Ground	Upon written technical direction.
Water and Drinking Water in engaging	opon without disconom
communities throughout the country on	
PFAS and other drinking water	
contaminant challenges	
1. As needed, attend and provide	
professional support for community	
engagement sessions. There will be up	
to three 1 to 2-day community	
engagement sessions (for planning	
purposes, assume travel for 2 meetings	
for one person).	
2. Prepare a draft synthesis for each	
community engagement session based	
on all written notes (for planning	
purposes assume 2 meetings).	
3. Participate in up to 5 one-hour	
conference calls with EPA in the	
development of meeting syntheses.	

### VII. REPORTING REQUIREMENTS

Monthly Progress Reports (including a progress evaluation discussion) Financial Reports

## VIII. GREEN MEETINGS AND CONFERENCES

The contractor shall follow the provision of EPA prescription 1523.703-1, *Acquisition of environmentally preferable meeting and conference services (May 2007)*, for the use of off-site commercial facilities for an EPA event, whether the event is a meeting, conference, training session, or other purpose. Environmental preferability is defined at FAR 2.101, and shall be used when soliciting quotes or offers for meeting/conference services on behalf of the Agency.

For purposes of these meetings, EPA will provide meeting space.

### IX. CONFERENCES AND WORKSHOPS

The contractor shall immediately alert the WACOR to any anticipated event under the work assignment which may result in incurring an estimated \$20,000 or more cost, funded by EPA, specific to that event, meeting, training, etc. Those costs would include travel of both prime and consultant personnel, planning and facilitation costs, including all outlays for conference preparation, AV and rental of venue costs, etc. The EPA WACOR will then prepare for approval the internal paperwork for the event and will provide it to the CO. The CO will advise the contractor when appropriate signatures have been obtained. At that point, effort can proceed for the event. If the event is being sponsored by another EPA organization, the organization providing the planning is responsible for the approval.

Any event which meets the definition of a "conference," with total net expenditures greater than \$20,000, is required to submit EPA Electronic Form 5170 and Form 5170-A (with cost estimates/actuals). In the case the workflow system is down and CORs require emergency approval, they can submit EPA Form 5170 (PDF) (2pp, 93K) (with cost estimates) to conference@epa.gov.

# X. SOFTWARE APPLICATION AND ACCESSIBILITY (SECTION 508 REHABILITATION ACT AND AMENDMENTS)

Software Application files, if delivered to the Government, shall conform to the requirements relating to accessibility as detailed to the 1998 amendments to the Rehabilitation Act, particularly, but not limited to, § 1194.21 Software applications and operating systems and § 1194.22 Web-based intranet and internet information and applications. See: http://www.section508.gov/

Preferred text format: MS Word, 8.0 or higher (Office 2007 or higher)

Preferred presentation format: Power Point, Office 2007 or higher Each graphic is an individual GIF file

Preferred portable format: Adobe Acrobat, version 6.0

# QUALITY ASSURANCE SURVEILLANCE PLAN for WSD's Mission Support

## **Quality Assurance Surveillance Plan**

The requirements contained in this WA are considered performance-based, focusing on the Agency's desired results and outcomes. The contractor shall be responsible for determining the most effective means by which these requirements will be fulfilled. In order to fulfill the requirements, the contractor shall design innovative processes and systems that can deliver the required services in a manner that will best meet the Agency's performance objectives. This performance-based requirement represents a challenge to the contractor to develop and apply innovative and efficient approaches for achieving results and meeting or exceeding the performance objectives, measures, and standards described below. The Contractor's performance will be reflected in the positive or negative evaluation offered by the Agency in the Contractor Performance Evaluation (CPE) which is evaluated annually (per the "Contractor Performance Evaluation" clause in the contract). The WACOR shall submit a complete annual review of the areas outlined in the Quality Assurance Surveillance Plan (QASP), included in the contract, which will then be utilized by the CLCOR in preparing the overall evaluations submitted annually in response to the Contractor Performance Evaluation requirements in the contract.

United s		ited States Environmental Protection Agency Washington, DC 20460				Work Assignment Number 02-26						
	Er	A		Work A	Work Assignment				Other Amendment Number:			
Contract N	lumber		Co	ontract Period 08/	′01/2015 <b>To</b>	07/31/:	2018	Title of Wor	k Assignn	nent/SF Site Na	me	
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Contractor	Base Option Period Number 2 F13h Contamination Surveillance											
CSRA I	LLC				2.8	, 2.15, 2	2.16, 2	2.17, 3.1	.4, 3	.1.13, 3.	1.19	
Purpose:		X Work Assig	ınment		1			Period of Performance				
	3				Work Assignment Close-Out							
		Work Assig	nment Amendmen	' <u>L</u>	Incremental Fundir	ıg		From 08/01/2017 To 07/31/2018				
		Work Plan	Approval					From U	8/01/.	2017 To 0	//31/2018	
Comments:  In accordance with clause B.1 immediate start is authorized for this work assignment beginning on August 1, 2017. If the work plan is not approved within 35 calendar days after receipt of the work plan, the												
contrac	tor sl	hall stop w	ork.									
	Superf	fund		Acco	ounting and Appro	priations Data	3			Х	Non-Superfund	
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⊆	OCN lax 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (	(Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code	
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Cumulative	Approve	ed:		Cost/Fee			LC	LOE:				
Work Assign	nment M	anager Name	Leanne St	ahl			Br	Branch/Mail Code:				
J								Phone Number: 202-566-0404				
(Signatura) (Pata)							FAX Number:					
(Signature) (Date)  Project Officer Name Nancy Parrotta							Branch/Mail Code:					
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(Signature) (Date)							Phone Number: 202-564-5260					
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(Signature) (Date)					-	FAX Number:						
Contracting	Contracting Official Name Donna Reinhart  Digitally signed by DONNA PEINHAPT						ьт 💳	Branch/Mail Code:				
DONNA					- DNI-a-UC-a-U C Carramanagas				Phone Number: 513-487-2114			
(Signature)			514. 0-02	DN. C-03, 0-0.3. Government,				FAX Number:				

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# PERFORMANCE WORK STATEMENT CSRA EP-C-15-012

Work Assignment No. 02-26 Period of Performance: 8/1/17-7/31/18

#### I. ADMINISTRATIVE:

### A. Title: Support for Fish Contamination Surveillance

B. Work Assignment Manager:

Leanne Stahl
Office of Science and Technology (OST)
1200 Pennsylvania Avenue, NW (MC:

4305T)

Washington, DC 20460

202-566-0404

stahl.leanne@epa.gov

Alternate Work Assignment Manager:

Elizabeth Murphy Barer

Great Lakes National Program Office

(GLNPO)

77 West Jackson Boulevard (MC: G17J)

Chicago, IL 60604-3507

312-353-4227

murphy.elizabeth@epa.gov

## C. Quality Assurance:

Some carryover activities under Task1 (Support for Surveillance Monitoring of Contaminants of Concern in U.S. Waters) of this performance work statement (PWS) require quality assurance (QA). Collection, use, and analysis of data for 2015 Great Lakes Human Health Fish Fillet Tissue Study (GLHHFFTS) activities, such as QA review of dioxin/furan data, will be identical to the procedures described in the Project-Specific Quality Assurance Project Plan (PQAPP) completed for Task 1 of WA 1-26 (EPA Contract No. EP-C-15-012), consistent with the Agency's QA requirements, appending the Contract Quality Assurance Project Plan (QAPP). The title of this existing PQAPP is Sample Preparation and Analysis for the 2015 National Coastal Condition Assessment Great Lakes Human Health Fish Fillet Tissue Study, Revision 4, April 4, 2017. The project-specific QA requirements for these Task 1 carryover activities must be addressed in the monthly progress reports as specified under Task 0 below.

Some new analytical activities to be conducted under Task 1 of the PWS require QA. These activities include chemical analysis of the 2015 GLHHFFTS fillet tissue samples for CECs under sub-task 1.2 (Laboratory Services Support) and QA review of the CEC analytical and quality control (QC) data under sub-task 1.3 (Data Review and Other QA Support). Consistent with the Agency's QA requirements, the contractor shall prepare a CEC analysis PQAPP for these new 2015 GLHHFFTS analytical activities as described under Task 1, sub-task 1.2. Work on the new Task 1 analytical activities cannot proceed until the contractor receives notification of CEC analysis PQAPP approval from the Contract Level Contracting Officer Representative (CLCOR) via email. The QA requirements must be addressed in the work plan in response to the PQAPP development specifications described in Task 1, sub-task 1.2 of this PWS and in monthly progress reports as specified in Task 0 below.

In addition, some activities under Task 3 (Support for Evaluation of Fish Tissue Sampling Methods for Contaminant Monitoring) of this PWS require QA. These activities include

chemical analysis of the Fish Plug Evaluation Study fillet tissue samples for mercury and selenium under sub-task 3.2 (Laboratory Services Support) and QA review of the mercury and selenium analytical and QC data under sub-task 3.3 (QA Support). Consistent with the Agency's QA requirements, the contractor shall prepare a Project-Specific Quality Assurance Project Plan (PQAPP) for these analytical activities as described under Task 3, sub-task 3.2, which specifies incremental development of the PQAPP as follows:

- 1. An initial analytical activities PQAPP that describes QA requirements for mercury analysis of Fish Plug Evaluation Study fillet tissue samples (sub-task 3.2) and for QA review of the Fish Plug Evaluation Study mercury analytical and associated QC data (sub-task 3.3).
- 2. Revision 1 of the initial analytical activities PQAPP that describes QA requirements for selenium analysis of Fish Plug Evaluation Study fillet tissue samples (sub-task 3.2) and for QA review of the Fish Plug Evaluation Study selenium analytical and associated QC data (sub-task 3.3).

Work on the analytical activities listed above for each phase of PQAPP development cannot proceed until the contractor receives notification of PQAPP approval and subsequent PQAPP Revision 1 approval from the Contract Level Contracting Officer Representative (CLCOR) via email. The QA requirements must be addressed in the work plan in response to the PQAPP development specifications described in Task 3, sub-task 3.2 of this PWS and in monthly progress reports as specified in Task 0 below.

## D. Background:

The Office of Science and Technology (OST) within EPA's Office of Water conducts studies that identify and assess the levels of chemical threats to surface water quality and human health in U.S. waters using fish tissue as an indicator of water quality. In the Great Lakes, OST partners with EPA's Great Lakes National Program Office (GLNPO) to conduct these statistically based fish tissue studies. Since 1998, OST and GLNPO (for Great Lakes fish tissue studies only) have initiated the following fish tissue studies (in reverse chronological order):

- 2015 National Coastal Condition Assessment (NCCA) Great Lakes Human Health Fish Fillet Tissue Study (2015 GLHHFFTS)
- 2013-14 National Rivers and Streams Assessment human health fish tissue study (2013-14 NRSA)
- 2010 NCCA Great Lakes Human Health Fish Tissue Study (2010 GLHHFTS)
- 2008-2009 National Rivers and Streams Assessment human health fish tissue study (2008-09 NRSA)
- 2006 Pilot Study of Pharmaceuticals and Personal Care Products (PPCPs) in Fish Tissue (PPCP Fish Pilot Study)
- 2000-2003 National Study of Chemical Residues in Lake Fish Tissue (National Lake Fish Tissue Study or NLFTS)

In 2014, EPA began planning for the second surveillance monitoring effort in the Great Lakes, which is designated as the 2015 Great Lakes Human Health Fish Fillet Tissue Study or 2015 GLHHFFTS. These Great Lakes surveillance monitoring efforts are scheduled at five-year intervals under EPA's National Coastal Condition Assessment. The 2015 GLHHFFTS provides the first opportunity for EPA to develop probability-based temporal trends data for contaminants of concern in Great Lakes fish by comparing data sets on the chemical concentrations in fillet tissue samples generated for the 2015 GLHHFFTS and the 2010 GLHHFTS. Fish samples that met the criteria for this study were collected at 152 nearshore sampling sites in the five Great Lakes primarily during the summer and fall of 2015. The last five fish samples were collected from sites in Lake Michigan during May 2016. Fillet tissue samples are being analyzed for the following contaminants: mercury, PCBs, perfluorinated compounds (PFCs), dioxins/furans, and some additional contaminants of emerging concern. The tasks remaining for this ongoing study include completion of the fillet tissue analysis, quality assurance (QA) review of the analytical data, statistical analysis of the fillet concentration data, and data reporting.

The 2013-14 NRSA human health fish tissue study provides the first opportunity to develop probability-based temporal trends data for contaminants of concern in fish from U.S. rivers when compared to chemical data in fish tissue generated for the 2008-09 NRSA human health fish tissue study. Fish samples were collected from 361 river reaches in the lower 48 states during the spring and summer months of 2013 and 2014. EPA analyzed fillet tissue samples from all 361 sites for mercury, from 352 sites for PFCs, and from a subset of 224 sites where fish tissue samples were previously collected during the 2008-09 NRSA for polychlorinated biphenyls (PCBs). The final task remaining for this study is data reporting.

The 2010 GLHHFTS involved the first probability-based surveillance monitoring for contaminants of concern in fillets of Great Lakes fish from 157 nearshore sites sampled in the five lakes during 2010. Fillet tissue samples were analyzed for mercury, PCBs, PBDEs, and PFCs. Results from this study will establish a statistically representative baseline for assessing threats to the quality and security of Great Lakes water resources. EPA will complete data reporting for this study in 2018.

The 2008-09 NRSA human health fish tissue study was the first probability-based assessment of the levels of contaminants of concern in fish from U.S. rivers. It involved collection of fish from 542 river reaches in the lower 48 states during 2008 and 2009. Fillet tissue samples were analyzed from all the sites for mercury, selenium, PCBs, PBDEs, and pesticides and from only the 163 urban river sites for PFCs. Results from this study provide the first statistically representative national chemical baseline data for identifying threats to the quality and security of U.S. rivers. Data reporting was completed in 2017 for this study. Tasks for this study will focus on long-term data management, response to data requests, and preparation of final disposition and storage of project records.

EPA developed the PPCP Fish Pilot Study to assess the threats these contaminants of emerging concern may pose to surface water quality and human health. In 2006, fish samples were collected from one reference site in New Mexico and effluent-dominated streams just below wastewater treatment plant discharges at five urban sites across the country (Chicago, Dallas,

Orlando, Phoenix, and West Chester, a suburb of Philadelphia). Fillet and liver samples were analyzed for 24 pharmaceuticals, and fillet samples only were analyzed for 12 personal care products. Release of the final EPA technical report for this study is pending.

The National Lake Fish Tissue Study was EPA's first probability-based assessment of chemical threats to U.S. water resources on a national scale. It involved collection of two types of fish samples (predators and bottom dwellers) from 500 lakes and reservoirs in the lower 48 states from 2000 through 2003. Predator fillet samples and bottom-dweller whole fish tissue samples were analyzed for mercury, arsenic, PCBs, dioxins and furans, pesticides, PBDEs and semivolatile organic compounds (e.g., polycyclic aromatic hydrocarbons or PAHs). The final technical report for all chemicals except the PBDEs was released in 2009, and an article reporting the PBDE data was published in 2013. Tasks for this study will focus on long-term data management, response to data requests, and preparation of final disposition and storage of project records and sample archives.

## II. OBJECTIVE:

The primary objective of this work assignment is to provide scientific, technical, quality assurance (QA), and logistical support to the Office of Water's Office of Science and Technology (OST) and the Great Lakes National Program Office (GLNPO) to detect and identify threats to national water resources and human health by supporting surveillance monitoring of contaminants of concern in surface waters throughout the United States, focusing on rivers and the Great Lakes. To achieve this objective, the contractor shall conduct activities that include, but are not limited to, the following:

- provide logistical support for fish sample collection
- secure, coordinate, and monitor laboratory services for analysis of fish tissue samples for new and ongoing projects
- complete QA review of the analytical data received from multiple laboratories
- manage and store the analytical and related field data for each project
- prepare and review files for statistical analysis of analytical data and conduct statistical analysis of analytical data
- review and provide support for development of reports and outreach materials related to the analysis of fish tissue for contaminants of concern
- provide technical support for a variety of other activities related to surveillance monitoring for contaminants of concern in fish.

The intended audience for these surveillance monitoring projects includes states and other participants in EPA's National Rivers and Streams Assessments (NRSAs) and National Coastal Condition Assessments (NCCAs). These projects address programmatic support needs related to our national all hazards homeland security responsibilities by providing the first statistically representative toxic chemical baseline data for U.S. rivers and for the Great Lakes and subsequent sets of statistically representative toxic chemical data to assess trends in the occurrence of toxic chemical levels in fish and to evaluate the effectiveness of policies, programs, and tools to protect and enhance the quality and security of water resources in rivers and the Great Lakes related to human health. This work assignment also contributes to the commitments made in EPA's *Strategic Plan (2011 to 2015)*, which references Goal 2 (Clean and

Safe Water), Objective 2.1 (Protecting Human Health), Sub-objective 2.1.1 (Water Safe to Drink).

In support of these requirements, this contract supports the nation's drinking and wastewater infrastructure, collectively known as the Water Sector, in being informed, coordinated, and prepared to prevent, detect, respond to, and recover from terrorist attacks and other intentional acts, natural disasters, and other hazards (referred to as the "all hazards' approach), which may also occur, including the needs and challenges posed by natural disasters, catastrophic events, adaptation and impacts of climate change, floods, earthquakes, pandemic illness, and any other events which impact the safety and availability of our water supply.

In pursuit of these efforts, the contractor may be tasked with preparing a correlation summary comparing the results under this work assignment to the components of the Water Security Strategy framework.

This work will be completed commensurate with Sections 2.8, 2.15, 2.16, 2.17, 3.1.4, 3.1.5, 3.1.13, and 3.1.19 of the Contract Level PWS. The level of effort estimated for this work assignment is 3,000 hours.

### III. TASK DETAIL:

All direction under this WA will be provided as written technical direction from the WACOR, Alternate WACOR, or Task Manager (TM), as appropriate. If provided first as verbal technical direction to the contractor, it will be confirmed in writing within 5 calendar days, with a copy to the Contract Level Contracting Officer's Representative (CLCOR) and the Contracting Officer (CO), and is subject to the limitations of the technical direction contract clause. Each initial deliverable shall be provided to the EPA WACOR and EPA CLCOR in draft form for review and comment. The contractor shall incorporate WACOR review comments into revisions of the drafts. All drafts and final reports shall be approved by the WACOR.

The contractor shall perform the following tasks:

## Task 0: Work Plan and Monthly Progress Reports

The contractor shall develop a work plan that describes how each task will be carried out. The work plan shall include a schedule, staffing plan, level of effort (LOE), and cost estimate for each task, the contractor's key assumptions on which staffing plan and budget are based, and qualifications of proposed staff. If a subcontractor(s) is proposed and subcontractors are outside the local metropolitan area, the contractor shall include information on plans to manage work and contract costs.

For carryover Task 1 activities, the contractor shall prepare a statement indicating that these WA activities are a continuation of work conducted for WA 1-26 under EPA Contract No. EP-C-15-012. The work plan shall explain that collection, use and analysis of data in this work assignment will be identical to the procedures described in the existing 2015 GLHHFFTS PQAPP completed under WA 1-26. For new Task 1 analytical activities, the contractor shall

prepare a new PQAPP as listed above and specified in Task 1, sub-task 1.2. Work on these new Task 1 analytical activities cannot proceed until the contractor receives notification of approval of the new CEC analysis PQAPP from the CLCOR via e-mail.

For Task 3, the contractor shall prepare a PQAPP and a subsequent PQAPP revision for mercury and selenium analysis of Fish Plug Evaluation Study tissue samples, respectively, as noted above and described in Task 3, sub-task 3.2. The contractor shall follow the QA requirements specified in the PQAPP and PQAPP revision to ensure the quality of primary data used to complete Task 3 analytical activities. Work on the Task 3 analytical activities cannot proceed until the contractor receives notification of approval of the PQAPP and of the subsequent PQAPP revision from the CLCOR via e-mail.

This task also includes monthly progress and financial reports. The monthly progress report shall indicate, in a separate QA section, whether significant QA issues have been identified and how they are being resolved. Monthly financial reports must include a table with the invoice LOE and costs broken out by the tasks in this WA.

<u>Task 0 Deliverables</u>: Work plan, monthly progress and financial reports, Checklist for Quality Assurance Project Plans, and Summary of Quality Assurance Activities and Issues by Work Assignment [<u>NOTE</u>: a new 2015 GLHHFFTS CEC analysis PQAPP is listed as a deliverable under Task 1 and the new Fish Plug Evaluation Study PQAPP and revised PQAPP are listed as deliverables under Task 3.]

# Task 1: Support for Surveillance Monitoring of Contaminants of Concern in U.S. Waters

The contractor shall provide support to characterize baseline levels of contaminants of concern and trends in contaminant levels in fish from U.S. rivers and the Great Lakes. This support will assist EPA in identifying contaminants that may be adversely impacting the quality and security of water resources important for human health, including the quality of source waters for drinking water and the level of contamination in fish species commonly consumed by humans. Support for this task will focus on planning and implementing fish sample collection for the 2018-19 NRSA; on chemical analysis of fish fillet tissue samples for the 2015 GLHHFFTS under the NCCA; on QA review of 2015 GLHHFFTS fillet tissue data; on fish tissue study data management; and on statistical analysis of fish tissue chemical data. The 2015 GLHHFTS is the second statistically representative study of toxic chemical residues in Great Lakes fish, and the 2018-19 NRSA is the third statistically representative study of toxic chemical residues in fish from U.S. rivers. Fish fillet data from these studies will allow EPA to characterize temporal trends in the contaminant levels measured in Great Lakes fish when compared to fish fillet results from the 2010 GLHHFTS and in river fish when compared to fish fillet results from the 2013-14 NRSA. Contractor support for this task will consist of a broad range of activities for the new 2018-19 NRSA, for the 2015 GLHHFFTS, and for other ongoing EPA fish tissue studies, including fish sampling support, laboratory services support, data review and other QA support, data management support, and data analysis support. Specific activities to be performed under this task are described in sub-tasks 1.1 through 1.5.

## 1.1 Fish Sampling Support

The contractor shall provide support for the collection and shipment of human health fish tissue study samples under the 2018-19 NRSA. This support consists of, but is not limited to, the following:

- planning the fish tissue monitoring study design and the logistics to implement the study
- obtaining fish sampling supplies for distribution to field crews conducting field sampling at the 2018-19 NRSA river sites designated for human health fish sampling (e.g., solvent-rinsed sheets of heavy-duty foil for wrapping individual fish in each composite sample and coolers for shipping the fish samples)
- providing for shipping of human health fish sampling supplies for the 2018-19 NRSA to the NRSA field sampling supply distribution center in Traverse City, MI
- developing mechanisms for field crews to obtain dry ice for fish sample preservation prior to and during shipment of coolers containing human health fish samples
- providing for shipping of 2018-19 NRSA human health fish samples from field or facility locations to the designated fish sample preparation laboratory in Owings Mills, MD or to an interim storage facility identified by the WACOR (e.g., Microbac Laboratories in Baltimore, MD)
- tracking shipment of 2018-19 NRSA human health fish samples collected during the 2018 field sampling season

The contractor shall provide support for planning the 2018-19 NRSA human health fish tissue study design and the logistics to implement the study. The 2018-19 NRSA study design for core ecological indicators has been completed by EPA's Office of Research and Development and circulated to study participants. The contractor shall review this larger study design and provide support for identifying an appropriate subset of 2018-19 NRSA river sites to be sampled for the human health fish tissue study. The contractor shall also provide support for planning logistics to conduct the human health fish tissue study after the sampling sites have been selected for this study.

The contractor shall obtain fish sampling supplies for the 2018-19 NRSA human health fish tissue study, including solvent-rinsed sheets of heavy-duty foil for wrapping individual fish specimens in each sample and coolers for shipping fish samples. The contractor shall obtain and monitor laboratory services to prepare and deliver up to 2000 sheets of solvent-rinsed heavy-duty foil using the same foil preparation protocols (e.g., foil sheet dimensions, type of solvent, solvent-rinsed foil baking temperature and duration, folding and bagging procedures for the treated sheets of foil, etc.) that were applied in preparing the last two batches of solvent-rinsed foil sheets for the 2015 GLHHFFTS. It is critical that the laboratory prepare the solvent-rinsed foil sheets using heavy-duty foil for durability of the sheets during fish sampling operations. To ensure use of sufficiently strong heavy-duty foil for the solvent-rinsed sheets, the contractor shall provide appropriately sized rolls of heavy-duty aluminum foil to the laboratory designated for preparation of the solvent-rinsed foil sheets. In addition, the contractor shall obtain up to 20 coolers to increase the cooler supply available for shipping 2018-19 NRSA whole fish samples. The contractor shall provide coolers of the same brand, color, and size as the coolers currently available for transporting and shipping the 2018-19 NRSA fish samples. The WACOR will provide cooler specifications to the contractor.

The contractor shall provide shipping support for 2018-19 NRSA human health fish sampling supplies. These fish sampling supplies shall be organized into individual human health whole fish sampling kits, packed into coolers (one sampling kit per cooler), sealed with tape and a custody seal, and shipped (generally via FedEx ground transportation unless there is a time critical need for shipment of one or more coolers via overnight air delivery) to the 2018-19 NRSA field sampling supply distribution center in Traverse City, MI or an alternative destination specified by the WACOR. Each sampling kit shall include a pre-addressed shipping bill for priority overnight air delivery of fish samples with the "Sender" information left blank for the field crews to complete when they have a fish sample ready to ship back in the cooler. The WACOR will provide the name and address of the coordinator at the supply distribution center and shipping information for any alternative destination, as applicable. During the WA period of performance, there will be up to 200 coolers with fish sampling kits to ship to the supply distribution center. For the purpose of estimating costs, the combined weight of a cooler and fish sampling kit is about 15.5 lbs. The Contractor shall track progress of supply shipments and report the following to the WACOR:

- interim shipping status (when problems develop during shipment)
- resolution of shipping issues
- delivery date and time on the day of delivery

The contractor shall provide mechanisms for field crews collecting human health fish samples for the 2018-19 NRSA to obtain dry ice for shipping these samples to the Tetra Tech facility in Owings Mills, MD (for fish sample preparation) or to an interim facility designated by the WACOR for receipt of these samples (e.g., Microbac Laboratories in Baltimore, MD). Shipping protocols specify using 50 pounds of dry ice per cooler for shipment of the human health whole fish samples. The WACOR will identify field crews that require dry ice for fish sample shipment. EPA anticipates the need to supply sufficient dry ice (allowing for sublimation of dry ice prior to packing fish composite samples in coolers for shipment) for shipping up to 50 coolers of fish samples during the WA period of performance.

The contractor shall be responsible for providing shipping support to transport 2018-19 NRSA human health fish samples collected during the 2018 field season via priority overnight air delivery from NRSA field or facility locations to the fish sample preparation laboratory at the Tetra Tech facility in Owings Mills, MD or to an alternative location designated by the WACOR for fish sample shipment (e.g., Microbac Laboratories in Baltimore, MD). The contractor shall track all shipments of fish samples using shipping information in email notifications from EPA's National Aquatic Resource Survey (NARS) sample tracking system based in Corvallis, Oregon or directly from field crews. The contractor shall report progress of each fish sample shipment initiated by 2018-19 NRSA field crews, including notifying the WACOR of any shipping problems when they arise and providing the cooler delivery date to the WACOR once confirmation of delivery is available from the overnight delivery service. The contractor shall also notify the WACOR about the condition of each fish sample within 24 hours after fish sample delivery. EPA anticipates shipment of up to 100 coolers during the WA period of performance.

<u>Task 1.1 Deliverables</u>: Fish sampling supplies; Delivery notifications for fish sampling kit shipments; Notifications for delivery of human health whole fish samples and sample condition.

## 1.2 Laboratory Services Support

The contractor shall provide technical and logistical support for planning, securing, coordinating, and monitoring laboratory services for analysis of 2015 GLHHFFTS fillet tissue samples for contaminants of emerging concern (CECs) identified in Great Lakes fish by EPA's Great Lakes National Program Office (GLNPO). The contractor shall also provide technical and logistical support for coordinating and monitoring ongoing laboratory services for analysis of 2015 GLHHFFTS fillet tissue samples for dioxins and furans. The contractor shall provide laboratory services support that includes, but is not limited to, the following activities:

- defining laboratory requirements for CEC analysis
- preparing and distributing a statement of work (SOW) for the CEC analysis laboratory
- evaluating responses to the SOW to secure laboratory services from an experienced laboratory with demonstrated technical qualifications for CEC analysis of fish tissue samples
- preparing a new 2015 GLHHFFTS CEC analysis PQAPP that includes the required information for analysis of fish tissue samples for the to be determined (TBD) CECs
- coordinating shipments of fish fillet tissue samples for dioxin/furan and CEC analyses and providing support for shipping the tissue samples to the designated analytical laboratories
- maintaining continuous oversight of dioxin/furan and CEC analytical laboratory work performance
- developing formats for analytical data reporting
- providing ongoing support to furnish a secure and properly maintained freezer facility for long-term storage of archived fish tissue samples from the series of EPA fish tissue studies

The contractor shall define laboratory requirements for enhancing and applying a CEC screening method to analyze 2015 GLHHFFTS fillet tissue samples for CECs that was initially developed by EPA's GLNPO. The WACOR will provide the necessary information for defining laboratory requirements to expand work on refining, testing, and applying the existing CEC screening method.

The contractor shall prepare the SOW for enhancement of GLNPO's method for screening fish tissue samples for CECs and for application of this method to analyze the 2015 GLHHFFTS fillet tissue samples for selected CECs. The contractor shall assume analysis of up to 152 fillet tissue samples for selected CECs. The WACOR will obtain the CEC tissue screening method information necessary to prepare the SOW from GLNPO and forward it to the contractor. The contractor shall complete an appropriate laboratory solicitation process to obtain the services of a laboratory that is most qualified to perform the analytical work related to refining the CEC tissue screening method and using the method to analyze the 2015 GLHHFFTS fillet tissue samples for the selected CECs. For cost estimating purposes, assume that the cost of analyzing each of the 152 2015 GLHHFFTS fillet tissue samples for CECs will be about four times the per sample cost of analyzing the fillet tissue samples for PFCs.

Prior to the designated laboratory initiating CEC analysis of 2015 GLHHFFTS fillet tissue samples, the contractor shall prepare a new project-specific QAPP (PQAPP) for analyzing 2015

GLHHFFTS fillet samples for CECs. In preparing this PQAPP, the contractor shall follow current EPA guidance for QAPP development. The contractor shall prepare a draft PQAPP for WACOR review and incorporate WACOR comments on the draft PQAPP to produce the draft final PQAPP for review by the WACOR and other individuals designated for PQAPP approval. The contractor shall produce a final signed PQAPP for CEC analysis of the 2015 GLHHFFTS fillet samples based on final comments from the WACOR, who will compile and forward comments from all the reviewers and signatures of the approvers. The contractor shall prepare and deliver electronic copies of the final signed PQAPP in two formats, WORD and PDF. The WACOR will circulate the final signed PQAPP to the PQAPP distribution list and forward a signed copy of the PQAPP to the CLCOR for approval.

The contractor shall coordinate shipments of 2015 GLHHFFTS fish fillet tissue samples to the laboratories designated for dioxin/furan and CEC analysis, respectively. The contractor shall coordinate scheduling of fillet tissue sample shipments to the applicable analytical laboratories with the Tetra Tech fish sample preparation laboratory in Owings Mills, MD. The contractor shall also provide shipping support to transport the 2015 GLHHFFTS fillet tissue samples from the Owings Mills, MD facility to the respective analytical laboratories via priority overnight air delivery. For each fish tissue sample shipment, the contractor shall track the progress of the fillet tissue sample shipment, contact the overnight air delivery service immediately to resolve any problems that develop during shipment of the tissue samples, notify the WACOR within 24 hours about any shipping problems and their resolution, confirm receipt of coolers with the laboratory and notify the WACOR on the day of their delivery, and report fillet tissue sample condition to the WACOR within 24 hours after the coolers have been delivered to the laboratory. For cost estimating purposes, assume that coolers containing one batch of samples each will be shipped to the applicable analytical laboratories (AXYS Analytical in Sidney, BC, Canada for dioxin/furan samples and a designated laboratory in upstate New York for CEC samples). During the work assignment period of performance, EPA estimates that two coolers of dioxin/furan samples and eight coolers of CEC samples will be shipped to the respective analytical laboratories. In addition, assume that each cooler will be packed with enough dry ice to keep the tissue sample jars solidly frozen for at least 48 hours.

The contractor shall maintain continuous oversight of laboratory work performance for the laboratories analyzing 2015 GLHHFFTS fillet tissue samples for target chemicals of concern (e.g., dioxins/furans and CECs), tracking compliance of each laboratory with technical and QA requirements and adherence to the data delivery schedule. The contractor shall notify the WACOR within 24 hours if any problems develop with the quality or timeliness of work being performed by the laboratories conducting analysis of 2015 GLHHFFTS fillet tissue samples for target chemicals of concern and shall initiate corrective actions to address these problems. Corrective actions for tissue sample analysis quality issues are specified in the existing 2015 GLHHFFTS analytical activities PQAPP for dioxins and furans and in the new CEC analysis PQAPP for the CECs.

The contractor shall ensure that the analytical laboratories apply formats for reporting 2015 GLHHFFTS fillet tissue target chemical data (e.g., dioxin/furan and CEC fillet tissue data) that are consistent with requirements in the existing 2015 GLHHFFTS analytical activities PQAPP for dioxins and furans and in the new CEC analysis PQAPP for CECs. The contractor shall also

ensure that the analytical laboratory data reporting formats will facilitate application of manual and automated review procedures developed for previous fish contamination studies (e.g., 2010 GLHHFTS) and applied to the 2015 GLHHFFTS.

The contractor shall continue to provide a secure freezer facility for storing archived fish tissue samples from EPA fish tissue studies that meets the specifications in the 2015 GLHHFFTS PQAPP for long-term storage of these samples (e.g., freezer temperature maintained at less than or equal to minus 20°C). A freezer at Microbac Laboratories in Baltimore, MD is the current repository for the archived fish tissue samples. It currently contains 8,724 jars of NLFTS fish tissue samples, 304 jars of 2010 GLHHFTS fish tissue samples, and 991 jars of 2013-14 NRSA fish tissue samples. During the WA period of performance, up to 600 jars of 2015 GLHHFFTS fish tissue samples will be transferred to the secure freezer facility for long-term storage. The contractor shall integrate these project-specific tissue samples into the freezer, organize them in the available freezer space, develop an electronic inventory of the 2015 GLHHFFTS archived fish tissue samples (based on inventory formats used for previous fish tissue studies), and submit a copy of this inventory to the WACOR. For archived tissue samples from all the EPA fish tissue studies, the contractor shall ensure that the archived fish tissue samples are labeled according to PQAPP specifications, organize the archived samples in the freezer by project, develop project-specific inventories of archived fish tissue samples, submit electronic copies of the inventories to the WACOR, and manage the long-term storage of the archived samples. The archived sample inventories shall identify the EPA fish tissue study and include information on the content and condition of each sample being stored for that study and on the location in the freezer of each sample associated with that study. The contractor shall update applicable inventories when archived fish tissue samples are removed or added to the long-term storage facility and submit revised archived sample inventories to the WACOR. The contractor shall not remove any archived fish tissue samples either temporarily or permanently from the freezer without written approval from the WACOR. The contractor shall notify the WACOR via email within 24 hours of the arrival of new archived fish tissue samples from any of the analytical laboratories working on fish tissue analyses for ongoing EPA fish tissue studies.

During this work assignment period of performance, the contractor shall conduct an assessment of the condition of the set of remaining NLFTS archived fish tissue samples (8,724 jars) that have been stored in the freezer for up to 17 years. In conducting this assessment of the NLFTS archived fish tissue samples, the contractor shall complete the following activities:

- identify archived fish tissue sample jars that are no longer viable for tissue analysis due to various types of damage (e.g., tissue desiccation and broken jars or jar lids)
- develop and submit a report on the assessment results to the WACOR that describes the condition of each of the fish tissue samples and includes a recommendation on whether to retain or discard each of the samples based on their condition
- remove the damaged fish tissue sample jars from the freezer after WACOR review of the assessment results and approval of recommendations for tissue sample disposal
- use an appropriate approach to discard the damaged fish tissue samples
- reorganize the freezer space to create more space for interim storage of whole fish samples and for long-term storage of existing and future archived fish tissue samples
- update the NLFTS archived fish tissue sample inventory to reflect the disposal of damaged archived fish tissue samples

<u>Task 1.2 Deliverables</u>: Draft and final 2015 GLHHFFTS CEC analysis SOW; Draft, draft final, and final 2015 GLHHFFTS CEC analysis PQAPP; Fillet tissue sample shipment delivery and condition notifications; Analytical results for analyses of up to 152 2015 GLHHFFTS fillet tissue samples for dioxins/furans and CECs; Archived fish tissue sample inventories; NLFTS archived tissue sample condition assessment results and sample disposal recommendations.

## 1.3 Data Review and Other QA Support

The contractor shall apply manual and automated systems for qualitative and quantitative review of analytical and quality control (QC) data generated by analytical laboratories during preparation and analysis of the 2015 GLHHFFTS fillet tissue samples. The contractor shall review the data for completeness, accuracy, and compliance with QC procedures, acceptance criteria, and reporting requirements specified in the existing 2015 GLHHFFTS analytical activities PQAPP (dioxins/furans) and in the new CEC analysis PQAPP (CECs). The contractor shall also validate the quality of the data by evaluating data quality and assigning flags consistent with those used to validate fish tissue data for other 2015 GLHHFFTS target chemicals or for previous studies (e.g., the 2010 GLHHFTS) to identify results with potential quality issues. On a monthly basis, the contractor shall prepare and submit a data review progress report that includes information on receipt of data from the laboratories analyzing 2015 GLHHFFTS fillet tissue samples for dioxins and furans and CECs and submitting the respective analytical and QC data for these target chemical groups. The contractor shall report laboratory progress on analysis of 2015 GLHHFFTS fillet tissue samples for each target chemical group and the status of contractor review of the data from each laboratory. In the data review progress reports, the contractor shall also identify any analytical results with potential quality problems based on QC requirements specified in the existing 2015 GLHHFFTS analytical activities PQAPP (dioxins and furans) or in the new 2015 GLHHFFTS CEC analysis PQAPP (CECs). For cost estimating purposes, assume QA review of the following 2015 GLHHFFTS analytical data sets and the related QC data for each data set (152 fillet tissue sample results per data set):

- the 2015 GLHHFFTS dioxin/furan analytical and QC data
- the 2015 GLHHFFTS CEC analytical and OC data

The contractor shall provide support for a number of other QA activities, including, but not limited to, the following:

- preparing revisions to update existing fish tissue study project-specific analytical activities QAPPs (PQAPPs), as necessary
- compiling target chemical information to incorporate into project-specific QA reports that summarize results of the analytical data quality reviews and describe qualification of any analytical results during the review process for fish tissue studies where fish tissue analysis and QA data reviews have been completed (e.g., the 2015 GLHHFFTS)
- developing materials that describe and document the status of QA activities related to chemical analysis of EPA fish tissue study samples for EPA management briefings, meeting presentations, annual OST QA reports, and QA audits (if scheduled during the work assignment period of performance)
- documenting target chemical QA information to respond to EPA requirements for development of Information Quality Guidelines

The contractor shall prepare fish tissue study analytical QA reports after completion of the QA data review for each study with content and format consistent with the content and format used to present analytical and related information in the National Lake Fish Tissue Study (NLFTS) analytical QA report unless otherwise specified by the WACOR. The NLFTS QA report is available online at https://www.epa.gov/fish-tech/national-lake-fish-tissue-study-reports. The contractor developed an initial draft analytical QA report for the 2010 GLHHFTS and the 2013-14 NRSA during previous work assignments. The contractor shall prepare draft final and final 2010 GLHHFTS and 2013-14 NRSA QA reports during this work assignment period of performance based on comments from the WACOR. The contractor shall also prepare and submit an initial draft, draft final, and a final 2015 GLHHFFTS analytical QA report following the same process applied for development of QA reports for previous fish tissue studies. The WACOR will review and approve all final fish tissue study analytical QA reports.

The WACOR will specify format and content for development of materials to document other QA activities, as required. In addition to the development of data review monthly progress reports and the project-specific analytical QA reports, assume the following other QA activities for cost estimating purposes: preparation and submission of fish tissue study analytical QA information for the annual OST QA report and development of materials documenting QA activities related to EPA fish tissue study target contaminants of concern for three briefings and six meeting presentations.

<u>Task 1.3 Deliverables</u>: Data review monthly progress reports; Draft final and final analytical QA reports for the 2010 GLHHFTS and the 2013-14 NRSA fish tissue study; Initial draft, draft final and final analytical QA report for the 2015 GLHHFFTS; Analytical QA documentation for briefings and presentations.

## 1.4 Data Management Support

The contractor shall provide both manual and automated systems to manage chemical data and related study information for EPA fish tissue studies. The contractor shall utilize these systems to conduct the following types of activities:

- chemical data receipt, storage, and retrieval
- organization and maintenance of project-specific data, which incorporates the chemical data for the respective fish tissue studies and the related field data and statistical information
- sample analysis tracking
- development of project-specific data files (e.g., statistical analysis input files and files for distribution to states and other participants in each fish tissue study)
- preparation of computerized reports to identify errors, to provide information for management briefings or technical presentations, and to produce data summaries or graphics for a variety of applications

The contractor shall receive and store chemical data and related study information for EPA fish tissue studies, including historical data/information and data/information gathered during this work assignment period of performance. These data will typically be in electronic formats, but

some data and study information may be delivered as hard copy. The contractor shall maintain an automated inventory of these data and related information and shall provide a secure facility to store project-specific data in an organized, retrievable manner.

The contractor shall incorporate the remaining 2015 GLHHFFTS fish tissue data into an existing project-specific database that was developed using Microsoft Access software. This is one of a series of six existing project-specific Access databases that have been organized to efficiently receive, store, manipulate, and retrieve field, laboratory, and statistical data and project information related to individual EPA fish tissue studies. The 2015 GLHHFFTS Access database structure, content, and organization for the fish tissue sample data is consistent with the Access databases prepared for the previous EPA fish tissue studies (e.g., 2010 GLHHFTS). The contractor shall also continue to maintain the existing project-specific Access databases developed for previous EPA fish tissue studies and provide documentation on the structure, content, organization, and function for each of the six databases consistent with a user manual format. For all six project-specific Access databases, the contractor shall provide technical support for database maintenance that includes, but is not limited to, testing for data completeness and accuracy and incorporation of data security measures to maintain the integrity and security of the fish tissue study data.

The contractor shall provide support to respond to requests for data and related information for EPA fish tissue studies. These requests will generally require quick responses within a period of one or two days. For responses to requests, the contractor shall retrieve and compile data and other related information, prepare data and related information files in appropriate formats (e.g., data files in Excel and data dictionaries in WORD), and distribute the files as directed by the WACOR. For cost estimating purposes, assume responses to 30 data requests during the work assignment period of performance.

<u>Task 1.4 Deliverables</u>: Final 2015 GLHHFFTS Access database; Fish study Access database user documentation; Fish tissue study data request responses.

### 1.5 Data Analysis Support

The contractor shall provide support for statistical analysis of EPA fish tissue study data. EPA analyzes environmental data (e.g., fish tissue data) from probability surveys (e.g., the 2015 GLHHFFTS) using agency-developed custom programs in R statistical software. These programs generate statistical results, such as weighted (due to unequal probability-based study designs) means, medians, standard deviations, percentiles, and cumulative distribution functions with confidence intervals. The contractor shall prepare chemical-specific input data files for statistical analysis of the fish tissue study analytical results that incorporate data for each sample and for each chemical or chemical group from all the valid probability-based fish tissue samples. In developing these statistical input files, the contractor shall apply appropriate formats of statistical input files used for previous fish tissue studies (e.g., Excel files that apply the format of the chemical-specific 2010 GLHHFTS statistical input files for development of the corresponding chemical-specific 2015 GLHHFFTS statistical input files). The WACOR will provide the 2015 GLHHFFTS master list of valid fish tissue samples. For cost estimating purposes, assume preparation of statistical analysis input files or participant data distribution

files for the following 2015 GLHHFFTS data sets:

- 2015 GLHHFFTS dioxin/furan data for the 152 fillet tissue samples
- 2015 GLHHFFTS CEC data for up to the 152 fillet tissue samples

The contractor shall also provide support for development of comparative analyses of probability-based fish tissue data (e.g., 2013-14 NRSA fish fillet tissue and fish plug tissue mercury analysis results) as directed by the WACOR. These analyses may include, but are not limited to, various statistical comparisons of fish tissue data sets to test for statistically significant differences between or among fish tissue data sets. The contractor shall plan, perform, and prepare summaries of the statistical results for incorporation into technical reports and/or articles for publication in scientific journals.

<u>Task 1.5 Deliverables</u>: Draft and final input files for statistical analysis and/or distribution of 2015 GLHHFFTS target chemical data; Comparative analyses of fish tissue data.

# Task 2: Support for Reporting Results of Contaminant Surveillance Monitoring in U.S. Waters

The contractor shall provide support for reporting results of EPA fish tissue studies conducted for surveillance monitoring of contaminants of concern in national water resources, including results from the 2013-14 NRSA fish tissue study and the 2015 NCCA/GLHHFFTS. These data will assist EPA in evaluating the effectiveness of policies, programs, and tools to protect and enhance the quality of water resources related to human health in U.S. rivers and the Great Lakes. Support for this task will focus on reporting results of target chemical analyses of 2013-14 NRSA and 2015 GLHHFFTS fish tissue samples, including development of data summaries, technical reports and presentations, and articles for scientific journals. Support for this task will also include preparation of information (i.e., text and graphics) for development of a variety of outreach materials related to the EPA fish tissue studies. Specific activities to be performed under this task are described in sub-tasks 2.1 and 2.2.

# 2.1 <u>Technical Document Support</u>

The contractor shall provide support for development of technical documents to report 2013-14 NRSA and 2015 GLHHFFTS target chemical results and compare these results to similar chemical results from related EPA studies (e.g., the 2010 GLHHFTS). These technical documents may include, but are not limited to, data summaries, project-specific technical reports, and scientific journal articles for release and publication of the target chemical data. Contactor support for technical document development may include, but is not limited to, the following:

- preparation of data summaries, text, and graphics for incorporation into technical reports or scientific journal articles
- compilation, analysis, and integration of data and related technical information from multiple sources into a technical document
- application of EPA-compatible software for document production (e.g., WORD)

Examples of technical documents that EPA has planned for development during the work assignment period of performance include the following:

- a scientific article on the 2013-14 NRSA results for mercury, PCBs, and PFCs
- a technical report chapter on the 2013-14 NRSA results for target chemicals (i.e., mercury PCBs, and PFCs)
- a technical report chapter on the 2015 GLHHFFTS results for target chemicals (e.g., mercury, PCBs, and PFCs)
- a scientific article on the 2015 GLHHFFTS results for mercury and PCBs
- a scientific article on the 2015 GLHHFFTS results for PFCs
- a scientific article on the 2015 GLHHFFTS results for dioxins and furans
- a scientific article on the 2015 GLHHFFTS results for fatty acids

The contractor shall provide a draft of all materials developed for technical documents to the WACOR for approval, and shall prepare the final document materials based on WACOR comments on the draft materials. In developing technical document materials, the contractor shall comply with all the EPA requirements for production and publication of technical reports and with all the requirements for publication of articles in applicable scientific journals. The WACOR will provide information about agency requirements for publication of technical reports. The WACOR will identify journals for submission of scientific articles, and the contractor shall obtain the publication requirements for each journal and incorporate these requirements into materials for scientific article development. For technical document printing, the contractor shall provide a camera-ready copy and a disk copy (or other electronic storage media, such as a flash drive) of technical document materials in a format that enables the materials to be uploaded onto the INTERNET.

Task 2.1 Deliverables: Materials for development of up to 8 technical documents.

## 2.2 Outreach Materials Support

The contractor shall provide support for development of outreach materials related to monitoring fish tissue for contaminants of concern under the 2015 GLHHFFTS, 2013-14 NRSA, 2010 GLHHFTS, 2008-09 NRSA, NLFTS, and PPCP Fish Pilot Study. Outreach materials may include, but are not limited to, fact sheets, posters, talking points, electronic slide shows, cameraready copy, and web site materials (e.g., layouts, text, and graphics). The materials shall be developed for use in media events (e.g., press releases), briefings, meetings, and presentations at conferences or other events. All materials shall be provided in accordance with the limitations set forth in the Section H clause titled "PRINTING (EPAAR 1552.208-70)." EPA anticipates that outreach materials support during the work assignment period of performance will focus on development of poster, electronic slide show, and web site materials. The contractor shall provide a draft of all materials for approval by the WACOR, and shall prepare the final materials based on WACOR comments on the draft materials. In developing outreach materials, the contractor shall translate complex scientific information into simplified, accurate public communications information. For print products, the contractor shall provide a camera-ready copy and a disk copy (or other electronic storage media, such as a flash drive) in a format that enables the material to be uploaded onto the INTERNET.

Task 2.2 Deliverables: Various outreach materials for preparation of up to 10 outreach products.

# **Task 3: Support for Evaluation of Fish Tissue Sampling Methods for Contaminant Monitoring**

The contractor shall provide support for planning and implementing a study designed to evaluate the comparability of results from sampling and analysis of various types of fillet tissue samples for contaminants of concern, focusing on toxic metals (i.e., mercury and selenium). The primary purpose of this study, referred to as the Fish Plug Evaluation Study, is to determine if fillet plug sampling and analysis can serve as a reliable surrogate for whole fillet tissue sampling, homogenization, and analysis (the approach applied for all EPA human health fish tissue studies to date) for monitoring mercury levels in fish. Additionally, this study will investigate if it is technically feasible to apply fillet plug sampling and analysis for monitoring selenium concentrations in fish. The proposed study design involves the following elements:

- 1. Fish sampling will be conducted in two waterbody types, the Great Lakes and U.S. rivers. Lake Michigan and Lake Erie will be targeted for Great Lakes fish collection, and the Potomac River, Susquehanna River, and Delaware River will be targeted for river fish collection.
- 2. Individual whole fish samples will be collected from each waterbody type to provide plug and homogenized fillet tissue samples for mercury and selenium analyses.
- 3. To provide tissue samples for mercury analysis, 10 specimens of three species each will be collected from the designated Great Lakes and from the designated rivers. Target species for the Great Lakes will be lake trout, walleye, and Chinook or coho salmon. Target species for the rivers will be largemouth bass, smallmouth bass, and channel catfish. This fish sampling effort will yield 60 individual whole fish samples to be prepared for mercury analysis.
- 4. Five replicates each of three types of fish tissue samples will be prepared from each fish for mercury analysis: field-extracted plug tissue samples, lab-extracted plug tissue samples, and lab-prepared homogenized fillet tissue samples, yielding 900 fish tissue samples for mercury analysis (60 fish x 3 tissue samples types per fish x 5 replicates per tissue sample type = 900 fish tissue samples).
- 5. To provide tissue samples for selenium analysis, 5 specimens of three species each will be collected from the designated Great Lakes and from the designated rivers. Target species for the Great Lakes and rivers will be the same as for mercury (i.e., lake trout, walleye, and Chinook or coho salmon for the Great Lakes and largemouth bass, smallmouth bass, and channel catfish for the rivers). This fish sampling effort will yield 30 individual whole fish samples to be prepared for selenium analysis.
- 6. Four replicates each of two types of fish tissue samples will be prepared from each fish for selenium analysis: field-extracted plug tissue samples and lab-prepared homogenized fillet tissue samples, yielding 240 fish tissue samples for selenium analysis (30 fish x 2 tissue sample types per fish x 4 replicates per tissue sample type = 240 fish tissue samples).

Under Task 3, the contractor shall provide a broad range of support that includes field sampling and sample preparation support, laboratory services support, quality assurance (QA) support, data management support, and data analysis and reporting support. Specific activities to be performed under this task are described in sub-tasks 3.1 through 3.5.

## 3.1 Fish Sampling and Sample Preparation Support

The contractor shall provide support for collecting, shipping, and preparing fish samples for the Fish Plug Evaluation Study. This support consists of, but is not limited to, the following:

- preparing materials for the Fish Plug Evaluation Study fish sampling and sample preparation PQAPP
- providing for shipping of fish plug and whole fish samples from field locations to the designated fish sample preparation laboratory
- coordinating and tracking shipment of fish plug and whole fish samples

The contractor shall provide support for development of a fish sampling and sample preparation PQAPP for the Fish Plug Evaluation Study. The contractor shall prepare materials for the fish sampling and sample preparation PQAPP, but not have the primary responsibility for development of this PQAPP. Contractor support for development of the fish sampling and sample preparation PQAPP shall consist of preparing text and graphics for the PQAPP that are related to contractor fish sampling and sample preparation support responsibilities. The contractor shall provide a draft of all fish sampling and sample preparation PQAPP materials for approval by the WACOR, and shall prepare the final PQAPP materials based on WACOR comments on the draft materials. The contractor shall also be responsible for reviewing the fish sampling and sample preparation PQAPP during the PQAPP approval process.

The contractor shall be responsible for providing shipping support to transport fish plug samples and whole fish samples collected for the Fish Plug Evaluation Study from field locations to the Tetra Tech fish sample preparation laboratory in Owings Mills, Maryland via priority overnight air delivery. For each fish and plug sample shipment, the contractor shall track the progress of the sample shipment, contact the overnight air delivery service immediately to resolve any problems that develop during shipment of the samples, notify the WACOR within 24 hours about any shipping problems and their resolution, confirm receipt of coolers with the laboratory and notify the WACOR on the day of their delivery, and report sample condition to the WACOR within 24 hours after the coolers have been delivered to the laboratory. For cost estimating purposes, assume there will be 300 fish plug samples and 60 whole fish samples collected for mercury analysis and 120 fish plug samples and 30 whole fish samples collected for selenium analysis. Half of the fish plug and whole fish samples collected for mercury analysis and for selenium analysis will be shipped from Great Lakes field locations to the Tetra Tech fish sample preparation laboratory in Owings Mills, MD. The other half of the fish plug and whole fish samples collected for mercury and selenium analyses will be shipped from mid-Atlantic river locations to the Tetra Tech laboratory in Owings Mill, MD. Coolers containing whole fish samples (variable numbers of fish per cooler depending on the individual size of each fish) are required to be packed with at least 50 pounds of dry ice for shipment. Coolers containing fish plug samples shall be limited to 30 plug samples per cooler to reduce the risk of sample loss during shipment, and each plug sample cooler shall be packed with enough dry ice to keep the plug samples frozen for at least 48 hours.

<u>Task 3.1 Deliverables</u>: Draft and final Fish Plug Evaluation Study fish sampling and sample preparation PQAPP materials; Fish and plug sample shipment delivery and condition notifications.

# 3.2 <u>Laboratory Services Support</u>

The contractor shall provide technical and logistical support for planning, securing, coordinating, and monitoring laboratory services for analysis of Fish Plug Evaluation Study fillet tissue samples for mercury and selenium. The contractor shall provide laboratory services support that includes, but is not limited to, the following activities:

- defining laboratory requirements
- determining laboratory competency in order to be a qualified laboratory, in addition to evaluating laboratory capabilities to meet any other requirements leading to qualification of laboratories for each type of chemical analysis
- preparing and distributing analytical statements of work (SOWs) to qualified laboratories
- evaluating responses to the SOWs to secure laboratory services from an experienced laboratory with demonstrated technical qualifications for each type of chemical analysis
- developing an analytical activities QAPP for the Fish Plug Evaluation Study that includes required information for analysis of fillet tissue samples for mercury and selenium
- coordinating shipments of fish fillet tissue samples for mercury and selenium analyses and providing support for shipping the tissue samples to the designated analytical laboratories.
- maintaining continuous oversight of laboratory work performance
- developing formats for data reporting
- providing oversight for preparation of fillet tissue samples (if excess homogenized whole fillet tissue is available) for archive and storing them in the freezer facility maintained for long-term storage of archived EPA fish tissue samples

The contractor shall define laboratory requirements for analysis of the Fish Plug Evaluation Study fillet tissue samples for mercury to achieve consistency with method requirements, detection limits, and quantitation limits applied for analysis of fish tissue samples for mercury under recent EPA fish tissue studies (e.g., 2013-14 NRSA fish tissue study and 2015 GLHHFFTS). As applicable, the contractor shall identify any issues related to defining laboratory requirements for mercury analysis to achieve method consistency and propose approaches for resolution of these issues. The contractor shall also define laboratory requirements for analysis of fillet tissue samples for selenium, as required. Prior to defining laboratory requirements for selenium analysis of tissue samples, the contractor shall identify and investigate selenium analysis issues (e.g., method sensitivity when analyzing small tissue volumes and conversion of wet weight analytical results to dry weight to directly compare analytical results to EPA's tissue-based selenium water quality criterion, which is expressed in dry weight), summarize selenium analysis findings, and prepare recommendations on how to address selenium analysis issues. In addition, the contractor shall incorporate the requirement to measure percent (%) moisture in one homogenized (whole) fillet sample per fish from the 30 fish collected for selenium analysis in the analytical laboratory requirements.

The contractor shall prepare the SOWs for analysis of Fish Plug Evaluation Study fillet tissue samples for mercury and selenium using the same format and type/level of detail of information applied in the preparation of the mercury SOW for the 2015 GLHHFFTS. In developing the mercury and selenium analysis SOWs, the contractor shall also incorporate requirements from applicable EPA laboratory competency policy (available online at

http://www.epa.gov/fem/lab\_comp.htm) to determine laboratory qualifications. For the mercury SOW, the contractor shall assume that there will be 900 fillet tissue samples to analyze for mercury (600 fillet plug samples and 300 homogenized whole fillet tissue samples) based on the proposed design for the mercury portion of Fish Plug Evaluation Study. For the selenium SOW, the contractor shall assume that there will be up to 240 fillet tissue samples to analyze for selenium (120 fillet plug samples and 120 homogenized whole fillet tissue samples for selenium analysis) plus 30 whole fillet samples for % moisture analysis based on the proposed design for the selenium portion of the Fish Plug Evaluation Study. The contractor, in accordance with their own internal procurement procedures, shall use available information or contact laboratories directly to identify laboratories qualified to respond to these SOWs. Prior to distributing the SOWs for mercury and selenium analyses to qualified laboratories for response, the contractor shall provide an electronic copy of each draft SOW for WACOR review and incorporate WACOR comments into each draft SOW to produce the corresponding final SOW. The contractor shall be responsible for using a competitive process to obtain analytical laboratory services for mercury and selenium analyses of the fish fillet tissue samples, which includes the following:

- distributing the respective SOWs to qualified laboratories,
- evaluating laboratory responses to the SOWs and securing services for each metal analysis from an experienced laboratory with demonstrated technical qualifications to successfully meet the requirements for analyzing fillet tissue samples
- reporting the results of the competitive process to the WACOR

Prior to laboratories initiating mercury and selenium analyses of Fish Plug Evaluation Study fillet tissue samples, the contractor shall develop a project-specific analytical activities QAPP (PQAPP) for this study. In preparing the initial PQAPP (and subsequent PQAPP revision), the contractor shall follow current EPA guidance for QAPP development. For each type of analytical activity (i.e., mercury analysis of fillet tissue samples, which will be covered in the initial PQAPP, and selenium analysis of the plug and whole fillet samples, which will be covered in Revision 1 of the POAPP), the contractor shall prepare the draft POAPP (and drafts of the subsequent PQAPP revision) for WACOR review and incorporate WACOR comments on the draft POAPP (and on drafts of the subsequent POAPP revision) to produce the draft final PQAPP (and draft final PQAPP revision) for review by the WACOR and other individuals designated for POAPP approval. The contractor shall produce a final signed POAPP (and final revised PQAPP) based on final comments from the WACOR who will compile and forward comments from all the reviewers and signatures of the approvers. The contractor shall prepare and deliver electronic copies of the final signed PQAPP (and final signed revised PQAPP) in two formats, WORD and PDF. The WACOR will circulate the final signed PQAPP (and the subsequent final signed revised PQAPP) to the PQAPP distribution list and forward a signed copy of the final POAPP (and the final revised POAPP) to the CLCOR for approval and transmission to the contractor.

The contractor shall coordinate shipments of Fish Plug Evaluation Study fillet tissue samples (fillet plug samples and homogenized whole fillet samples) to the laboratories designated for mercury analysis and selenium analysis, respectively. The contractor shall coordinate scheduling of the tissue sample shipments to the applicable analytical laboratories with the Tetra Tech fish sample preparation laboratory in Owings Mills, MD. The contractor shall also provide shipping

support to transport the Fish Plug Evaluation Study fillet tissue samples from the Tetra Tech facility in Owings Mills, MD to the designated analytical laboratories via priority overnight air delivery. For each fish tissue sample shipment, the contractor shall track the progress of the fillet tissue sample shipment, contact the overnight delivery service immediately to resolve any problems that develop during shipment of the tissue samples, notify the WACOR within 24 hours about any shipping problems and their resolution, confirm receipt of coolers with the laboratory and notify the WACOR on the day of their delivery, and report fillet tissue sample condition to the WACOR within 24 hours after the coolers have been delivered to the laboratory. For cost estimating purposes, assume that there will be 15 batches of homogenized whole fillet tissue samples (20 samples per batch) and 30 batches of fillet plug samples (20 samples per batch) to ship to the laboratory designated for mercury analysis, and each tissue sample shipment will contain two batches of samples. Additionally, assume that there will be 6 batches of homogenized fillet tissue samples (20 samples per batch) and 6 batches of fillet plug samples (20 samples per batch) to ship to the laboratory designated for selenium analysis, and each tissue sample shipment will contain two batches of samples. For all fillet tissue sample shipments, also assume that each cooler will be packed with enough dry ice to keep the tissue sample jars solidly frozen for at least 48 hours.

The contractor shall maintain continuous oversight of laboratory work performance for the laboratories analyzing Fish Plug Evaluation Study fillet tissue samples for mercury and selenium, tracking compliance of each laboratory with technical and QA/QC requirements and adherence to the data delivery schedule. The contractor shall notify the WACOR within 24 hours if any problems develop with the quality or timeliness of work being performed by the laboratories conducting analysis of Fish Plug Evaluation Study fillet tissue samples and shall initiate corrective actions to address these problems. Corrective actions for quality issues are specified in the Fish Plug Evaluation Study analytical activities PQAPP.

The contractor shall ensure that the analytical laboratories apply formats for reporting Fish Plug Evaluation Study mercury and selenium fillet tissue data that are consistent with requirements in the Fish Plug Evaluation Study analytical activities PQAPP and that will facilitate application of manual and automated review procedures developed for the EPA fish tissue studies.

<u>Task 3.2 Deliverables</u>: Selenium analysis issue findings and recommendations for resolutions; Draft and final SOWs for analysis of Fish Plug Evaluation Study fillet tissue samples for mercury and selenium; Draft, draft final, and final Fish Plug Evaluation Study analytical activities PQAPP and PQAPP Revision 1; Fillet tissue sample shipment delivery and condition notifications; Analytical results for mercury and selenium.

## 3.3 Quality Assurance (QA) Support

The contractor shall apply manual and automated systems for qualitative and quantitative review of analytical and quality assurance/quality control (QA/QC) data generated by analytical laboratories during mercury and selenium analyses of the Fish Plug Evaluation Study fillet tissue samples. The contractor shall review the data for completeness, accuracy, and compliance with QA/QC procedures, acceptance criteria, and reporting requirements specified in the Fish Plug Evaluation Study analytical activities PQAPP. The contractor shall also validate the quality of

the data by evaluating data quality and assigning flags consistent with those used to validate fish tissue data for EPA fish tissue studies (e.g., the 2015 GLHHFFTS) to identify results with potential quality issues. On a monthly basis, the contractor shall prepare and submit a data review progress report that includes information on receipt of data from the laboratories analyzing Fish Plug Evaluation Study fillet tissue samples and submitting analytical and QA/QC data for this study. The contractor shall report laboratory progress on analysis of Fish Plug Evaluation Study fillet tissue samples for each target chemical (i.e., mercury and selenium) and the status of contractor review of the data from each laboratory. In the data review progress reports, the contractor shall also identify any analytical results with potential quality problems based on QA/QC requirements specified in the Fish Plug Evaluation Study analytical activities PQAPP. For cost estimating purposes, assume QA review of the following Fish Plug Evaluation Study analytical data sets with fish sample preparation QC data results from three mercury fish sample preparation batches and two selenium fish sample preparation batches, mercury results for 900 fillet tissue samples and selenium results for 240 fillet tissue samples (along with the related QC data for each data set), 90 lipid data results (one from each of the 60 mercury fish samples and one from each of the 30 selenium fish samples), and 30 results for % moisture (one from each of the 30 selenium fish samples):

- the fish sample preparation QC data
- the mercury analytical and QC data
- the selenium analytical and QC data
- the lipid data (for both mercury and selenium fish samples)
- the % moisture data (for selenium fish samples only)

The contractor shall provide support for other QA activities, including, but not limited to, the following:

- preparing revisions to update the Fish Plug Evaluation Study analytical activities PQAPP, as necessary
- developing chemical-specific analytical QA summaries for the Fish Plug Evaluation Study

The contractor shall prepare chemical-specific analytical QA summaries after completing the QA data review for each Fish Plug Evaluation Study target chemical (i.e., mercury and selenium). These analytical QA summaries shall consist of text and graphics that describe the results of each of the analytical data quality reviews and qualification of any analytical results during each data quality review process. The contractor shall develop the analytical QA summaries using content and formats consistent with the content and formats used to present analytical QA results for reporting EPA fish tissue study target chemical data in technical journal articles (e.g., *A Probability-Based Assessment of Contaminants in Great Lakes Fish*, which reports the mercury, PCB, and PBDE results from the 2010 GLHHFTS). For each of the chemical-specific analytical QA summaries, the contractor shall prepare and submit an initial draft and draft final analytical QA summary for WACOR review. The contractor shall incorporate WACOR comments on the initial draft and draft final analytical QA summaries, respectively. The WACOR will review and approve the final Fish Plug Evaluation Study analytical QA summaries.

<u>Task 3.3 Deliverables</u>: Data review monthly progress reports; Draft, draft final, and final chemical-specific analytical QA summaries.

## 3.4 <u>Data Management Support</u>

The contractor shall provide both manual and automated systems to manage chemical data and related study information for the Fish Plug Evaluation Study. The contractor shall utilize these systems to conduct the following types of activities:

- chemical data receipt, storage, and retrieval
- organization and maintenance of project-specific data, which incorporates the chemical data for the study and the related field data and statistical information
- sample analysis tracking
- development of data analysis files (e.g., statistical analysis files)
- preparation of computerized reports to identify errors, to provide information for management briefings or technical presentations, and to produce data summaries or graphics for various applications

The contractor shall receive and store chemical data and related study information for the Fish Plug Evaluation Study. These data will typically be in electronic formats, but some data and study information may be delivered as hard copy. The contractor shall maintain an automated inventory of these data and related information and shall provide a secure facility to store the study data in an organized, retrievable manner.

The contractor shall prepare statistical analysis files for the mercury and selenium phases of the Fish Plug Evaluation Study. The contractor shall develop these files in Excel format unless the otherwise specified by the WACOR. Initially, the contractor shall prepare draft mercury and selenium statistical analysis files using applicable fields from previous fish tissue study statistical input files as a template. The contractor shall incorporate QC review comments from the WACOR to prepare the final mercury and selenium statistical analysis files.

The contractor shall prepare a Fish Plug Evaluation Study database using Microsoft Access software to efficiently receive, store, manipulate, and retrieve field, laboratory, and statistical data and project information related to this study. The Fish Plug Evaluation Study Access database structure, content, and organization shall be consistent with the structure, content, and organization of the Access databases prepared for the EPA fish tissue studies. The contractor shall also provide technical support for maintenance of this Access database that includes, but is not limited to, testing for data completeness and accuracy and incorporation of data security measures to maintain the integrity and security of the Fish Plug Evaluation Study data.

<u>Task 3.4 Deliverables</u>: Fish Plug Evaluation Study Access database; Draft and final statistical analysis files for mercury and selenium.

### 3.5 Data Analysis and Reporting Support

The contractor shall provide support for analyzing and reporting Fish Plug Evaluation Study fillet tissue data and related fillet tissue data from the 2013-14 NRSA. The objective for

statistical analysis of these data is to apply statistical tests that can assess similarities and differences among the various sets of fillet tissue data (e.g., field-based fillet plug mercury data, lab-based fillet plug mercury data, and lab-based homogenized whole fillet tissue mercury data). Statistical analysis and data reporting support shall include, but is not limited to, the following:

- Developing and implementing a statistical analysis plan
- Reporting the statistical analysis results and the interpretation of the results
- Summarizing the analytical and statistical results for the Fish Plug Evaluation Study and 2013-14 NRSA fillet tissue data

The contractor shall provide support for developing and implementing a statistical analysis plan for the Fish Plug Evaluation Study fillet tissue data and related 2013-14 NRSA fillet tissue data, as applicable. The statistical analysis plan shall identify and describe the statistical analysis objectives, the fillet tissue data sets available for analysis, the statistical tests and test parameters that will be applied in comparing the various fillet tissue data sets, and the specific comparisons that will be performed between and among various fillet tissue data sets. The contractor shall prepare a draft statistical analysis plan, submit it to the WACOR for review, and incorporate WACOR comments on the draft statistical analysis plan to produce the final statistical analysis plan. The WACOR will review and approve the final statistical analysis plan prior to the contractor initiating implementation of the plan.

The contractor shall prepare a statistical analysis report that includes the statistical analysis results for the fillet tissue data from the Fish Plug Evaluation Study data and the 2013-14 NRSA (as applicable) and the interpretation of these results. The contractor shall develop a draft report outline for WACOR review and incorporate WACOR comments on the draft outline to produce the final report outline. The WACOR will review and approve the final report outline prior to the contractor beginning development of the statistical analysis report. In developing the statistical analysis report, the contractor shall prepare a draft report for WACOR review and incorporate WACOR comments on the draft report to produce the final report. The WACOR will review and approve the final statistical analysis report. After final report approval, the contractor shall prepare and deliver electronic copies of the final statistical analysis report in two formats, WORD and PDF.

The contractor shall prepare materials (text and graphics) summarizing the analytical and statistical results for the Fish Plug Evaluation Study fillet tissue data and 2013-14 NRSA fillet tissue data (as applicable) for incorporation of these results into technical presentations, reports, and journal articles. The contractor shall provide a draft of all analytical and statistical result summaries to the WACOR for review and prepare the final analytical and statistical result summaries based on WACOR comments on the corresponding draft result summaries. The WACOR will review and approve the final analytical and statistical result summaries.

<u>Task 3.5 Deliverables</u>: Draft and final statistical analysis plan; Draft and final statistical analysis report outline; Draft and final statistical analysis report; Draft and final analytical and statistical result summaries.

# Task 4: General Technical Support for Contaminant Surveillance Monitoring in U.S. Waters

The contractor shall provide general technical support for surveillance monitoring of fish tissue for contaminants of concern relative to water quality and human health. This support may include, but is not limited to, the following activities:

- planning for future studies or enhancement of existing studies (e.g., 2018-19 NRSA)
- preparation of data and related files (e.g., data dictionaries) in response to requests for EPA fish tissue study data
- literature searches and other research to support fish tissue study planning and reporting of fish tissue study results
- identification, development, assessment, costing, and tracking of new technologies for sampling and analysis, for monitoring, and for threat identification and potential impacts relative to protection of water quality and human health
- statistical support for development or review of technical presentations and reports related to EPA fish tissue studies
- coordination, facilitation, and/or performance of technical expert reviews related to analysis of fish tissue samples for contaminants of concern (e.g., draft analytical methods)
- participation on conference calls or webinars and at meetings, workshops, training events, or conferences as technical experts on analytical activities related to existing and future EPA fish tissue studies or to related studies
- development of technical information in response to EPA management requests to provide support for assessment of fish tissue study results, articulation of project-specific accomplishments, identification of lessons learned, and various other applications
- attendance at fish study team meetings, which are generally held quarterly at EPA headquarters
- preparation for final disposition and storage of project data, other project records, and sample archives for EPA fish tissue studies

The contractor shall perform specific activities for Task 4 as assigned through written technical direction by the WACOR. For cost estimating purposes, assume support for the following activities during the work assignment period of performance:

- literature searches for studies to inform the process for selection of CECs for the 2015 GLHHFFTS and for methods and/or studies to support evaluation of the use of fish plug sampling to monitor U.S. waters for selenium using EPA's selenium tissue-based criterion
- statistical support for development or review of five technical presentations and reports
- participation as a technical expert on an average of one 60-minute conference call per
- technical review of 12 presentations, reports, posters, etc. related to EPA fish tissue studies
- development of technical information related to EPA fish tissue studies in response to 15 EPA management requests

- attendance at quarterly fish study team meetings held at EPA headquarters in the Federal Triangle complex (Washington, DC)
- attendance at two scientific conferences with one or more sessions of presentations related to completed, ongoing, or planned work under EPA fish tissue studies (e.g., 2018 National Water Quality Monitoring Conference during Spring 2018 and a TBD Great Lakes regional meeting during the WA period of performance)
- preparation of National Lake Fish Tissue Study and PPCP Fish Pilot Study project data and other records for final disposition

Deliverables: Various technical support deliverables per technical direction.

### IV. SCHEDULE OF DELIVERABLES:

Task	Deliverable	Schedule
0	Work plan	As per submission requirement in
		contract
0	Monthly progress and financial progress reports	As per submission requirement in
		contract
0	Monthly QA activity and issue summary	As per submission requirement in
		contract
0	QAPP checklists	As per submission requirement in
		contract
1.1	Fish sampling supplies	As directed by the WACOR
		through written technical direction
1.1	2018-19 NRSA fish sampling kit shipment delivery	Day of shipment delivery
	notification	
1.1	2018-19 NRSA fish sample shipment delivery	Day of shipment delivery
	notification	
1.1	2018-19 NRSA fish sample shipment condition	Within 24 hours of shipment
	notification	delivery
1.2	Draft and final SOW for CEC analysis of 2015	As directed by the WACOR
	GLHHFFTS fillet tissue samples	through written technical direction
1.2	Draft 2015 GLHHFFTS PQAPP for CEC analysis of	As directed by the WACOR
	fillet tissue samples	through written technical direction
	Draft final 2015 GLHHFFTS PQAPP for CEC	4 days after receipt of WACOR
	analysis of fillet tissue samples	comments
	Final 2015 GLHHFFTS PQAPP for CEC analysis of	2 days after receipt of signatures
	fillet tissue samples	from approvers
1.2	2015 GLHHFFTS fillet tissue sample shipments to	Initiation of shipments as required
	labs selected for dioxin/furan and CEC analyses	for conformance with laboratory
1.0	2017 GY YYYDDDD G11	data delivery schedules
1.2	2015 GLHHFFTS fillet tissue sample shipment	Day of shipment delivery
1.0	delivery notification	777.11. 2.11
1.2	2015 GLHHFFTS fillet tissue sample shipment	Within 24 hours of shipment
	condition notification	delivery

		<u> </u>
1.2	2015 GLHHFFTS dioxin/furan and CEC analytical results	As per laboratory data delivery schedule
1.2	Archived fish tissue sample inventories	Within one month of addition or
1.2	Them ved hish tissue sumple inventories	removal of samples from the
		repository (storage freezer)
1.2	NLFTS archived fish tissue sample condition	Within one month after initiation
1.2	assessment results and recommendations for	of assessment
	NEW 1-2-1-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2	or assessment
1.2	discarding individual samples	Ti - C - 1 1 C 1 1 C
1.3	Data review monthly progress reports	The final day of the month for
		months where analytical data are
1.0	D 0.0 1 1.0 10010 07 77777777	delivered and/or reviewed
1.3	Draft final and final 2010 GLHHFTS analytical QA	One week after receipt of WACOR
	reports	comments on each version
1.3	Draft final and final 2013-14 NRSA analytical QA	One week after receipt of WACOR
	reports	comments on each version
1.3	Draft 2015 GLHHFFTS analytical QA report	One month after completing
		analytical data quality review
	Draft final and final 2010 GLHHFTS analytical QA	One week after receipt of WACOR
	reports	comments on each version
1.3	Materials documenting analytical QA activities	As directed by the WACOR
		through written technical direction
1.4	Incorporation of dioxin/furan and CEC analytical and	Within 3 weeks after completion
	QA review results into the 2015 GLHHFFTS Access	of the QA reviews for each of the
	database	analytical data sets
1.4	User documentation for EPA fish tissue study Access	As directed by the WACOR
	databases	through written technical direction
1.4	Responses to data/information requests for OST fish	Within 3 days after receipt of
	studies	request from WACOR
1.5	Draft input file for statistical analysis of 2015	Within 3 weeks after completion
	GLHHFFTS dioxin/furan analytical data	dioxin/furan QA data review
	Final input file for statistical analysis of 2015	Within 3 days after receipt of
	GLHHFFTS dioxin/furan analytical data	WACOR review comments
1.5	Draft and final files for online release of 2015	As directed by the WACOR
1.5	GLHHFFTS target chemical data	through written technical direction
1.5	Comparative analyses of target chemical data	As directed by the WACOR
1.5	Comparative analyses of target enemie at data	through written technical direction
2.1	Technical document materials	As directed by the WACOR
۷.1	1 confical document materials	through written technical direction
2.2	Outreach materials	As directed by the WACOR
2.2	Outreach materials	T
2 1	Dueft and final Eigh Dive E-sleeties Ct. 1- C-1	through written technical direction
3.1	Draft and final Fish Plug Evaluation Study fish	As directed by the WACOR
2.1	sampling and sample preparation PQAPP materials	through written technical direction
3.1	Fish Plug Evaluation Study fish and plug sample	Day of shipment delivery
10.00	shipment delivery notification	
3.1	Fish Plug Evaluation Study fish and plug sample	Within 24 hours of shipment
	shipment condition notification	delivery

2.0	0.1	A 1' 11 11 TYLACOD
3.2	Selenium analysis issue findings and issue resolution	As directed by the WACOR
27 4	recommendations	through written technical direction
3.2	Draft and final SOWs for mercury and selenium	As directed by the WACOR
	analysis of Fish Plug Evaluation Study fillet tissue	through written technical direction
	samples	
3.2	Draft, draft final, and final Fish Plug Evaluation	As directed by the WACOR
	Study analytical activities PQAPP and PQAPP	through written technical direction
	Revision 1	
3.2	Fish Plug Evaluation Study fillet tissue sample	Day of shipment delivery
	shipment delivery notification	
3.2	Fish Plug Evaluation Study fillet tissue sample	Within 24 hours of shipment
	shipment condition notification	delivery
3.2	Fish Plug Evaluation Study analytical results for	As per laboratory data delivery
	mercury and selenium	schedule
3.3	Data review monthly progress reports for the Fish	The final day of the month for
	Plug Evaluation Study analytical data	months where analytical data are
		delivered and/or reviewed
3.3	Draft, draft final, and final chemical-specific	As directed by the WACOR
	analytical QA summaries	through written technical direction
3.4	Fish Plug Evaluation Study Access database that	Within one month after completion
	includes field, analytical, and QA review	of QA review of all mercury and
	data/information	selenium data
3.4	Draft Fish Plug Evaluation Study statistical analysis	Within 3 weeks after completion
	input files for mercury and selenium analytical data	of data quality review of the
		analytical data for each chemical
	Draft Fish Plug Evaluation Study statistical analysis	Within 3 days after receipt of
	input files for mercury and selenium analytical data	WACOR review comments
3.5	Draft and final Fish Plug Evaluation Study statistical	As directed by the WACOR
	analysis plan	through written technical direction
3.5	Draft and final Fish Plug Evaluation Study statistical	As directed by the WACOR
	analysis report outline	through written technical direction
	Draft and final Fish Plug Evaluation Study statistical	As directed by the WACOR
	analysis report	through written technical direction
3.5	Draft and final Fish Plug Evaluation Study analytical	As directed by the WACOR
	and statistical result summaries	through written technical direction
4	General technical support deliverables	As directed by the WACOR
		through written technical direction
<u></u>		

## V. MISCELLANEOUS:

## **Software Application Files and Accessibility:**

Software application files, if delivered to the Government, shall conform to the requirements relating to accessibility as detailed to the 1998 amendments to the Rehabilitation Act, particularly, but not limited to, § 1194.21 Software applications and operating systems and § 1194.22 Web-based intranet and internet information and applications. See: http://www.section508.gov/

Preferred text format: MS Word 8.0 or higher (Office 2007 or higher)

Preferred presentation format: Power Point, Office 2007 or higher Each graphic is an individual GIF file

Preferred portable format: Adobe Acrobat, version 6.0

The EPA WACOR shall identify which of delivered products will require 508 compliance.

#### VI. TRAVEL

The contractor shall anticipate attendance at two scientific conferences with one or more sessions of presentations related to completed, ongoing, or planned work under EPA's fish tissue studies as described under Task 4. One of these conferences will be the 2018 National Water Quality Monitoring Conference scheduled for a week during Spring 2018.

# VII. MEETINGS, CONFERENCES, TRAINING EVENTS, AWARD CEREMONIES, AND RECEPTIONS

All appropriate clearances and approvals required by Agency policy in support of any and all conference related activities and expenses, including support of meetings, conferences, training events, award ceremonies and receptions, including the form 5170 for all meetings costing more than \$20,000, shall be obtained by the EPA CL-COR as needed and provided to the Contracting Officer (CO). Work under conference related activities and expenses shall not occur until this approval is obtained and provided by the EPA CL-COR.

The tasks under this work assignment do not require the acquisition of "off-site" facilities for conferences and meetings as defined in the IPN 12-05. AND the events associated with this work assignment are not covered by EPA Order 1900.3 and do not require EPA Form 5170.

## VIII. CONTRACTOR IDENTIFICATION

Contractor personnel shall always identify themselves as contractor employees by name and organization and physically display that information through an identification badge. Contractor personnel are prohibited from acting as the Agency's official representative. The contractor shall refer any questions relating to the interpretation of EPA policy, guidance, or regulation to the CO, CL-COR and/or WACOR.

## IX. PRINTING

All copying and printing shall be accomplished within the limitations of the printing clause of the contract.

# X. QUALITY ASSURANCE SURVEILLANCE PLAN:

All tasks identified in the performance work statement above are subject to review and approval by the EPA WACOR based on the general guidelines of the contract quality assurance surveillance plan regarding: Programmatic, cost control, timeliness/deliverables, and document development standards.

EPA		United	United States Environmental Protection Agency Washington, DC 20460				Work Assignment Number					
	L	A		Work Assignment				Other Amendment Number:				
Contr	act Number		Cor	tract Period 08/	01/2015 <b>To</b>	07/31/2	2018	Title of Work Assign	ment/SF Site Nam	ne		
EP-	C-15-01	2	Bas	e	Option Period Nur	mber 2		SMM Applica	tions			
Contr	Contractor Specify Section and paragraph of Contract SOW											
CSR	A LLC				2.10	), 3.1.3,	3.1.1	5, 3.1.16, 3.	.1.17			
Purpo	ose:	X Work Assig	nment		Work Assignment C	Close-Out		Period of Performance				
		Work Assig	nment Amendment		Incremental Fundin	g						
		Work Plan			•	-		From 08/01/2017 To 07/31/2018				
Comn	nents:											
2017	In accordance with clause B.1 immediate start is authorized for this work assignment beginning on August 1, 2017. If the work plan is not approved within 35 calendar days after receipt of the work plan, the contractor shall stop work.											
	Super	und		Acco	ounting and Appro	priations Data	1		X	Non-Superfund		
SF	Note: To report additional accounting and appropriations date use EPA Form 1900-69A.  SFO											
(Ma	x 2)											
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (D	ollars) (Cents)	Site/Project (Max 8)	Cost Org/Code		
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							34,700,000	Branch/Mail Code:				
	(Signature) (Date)						Phone Number: 202-564-5260  FAX Number:					
Other	r Agency Offici				(Date	′		or solvens one not so				
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	(Signature) (Date)						Phone Number:					
Contr	acting Official		na Reinhart		(Date	<u>'</u>		FAX Number: Branch/Mail Code:				
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	(Date)							FAX Number:				

Work Assignment Form (WebForms v1.0)

**REINHART** 

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### PERFORMANCE WORK STATEMENT (PWS)

Contract No. EP-C-15-012 Work Assignment No. 02-27

Period of Performance: 8/1/17-7/31/18

**Title:** Sustainable Materials Management Applications

Contract PWS Sections: 2.10, 3.1.3, 3.1.15, 3.1.16, 3.1.17

WACOR: Name: Priscilla Halloran

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Office: Office of Resource Conservation and Recovery

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City, State, Zip: Washington, DC 20460

Alt WACOR: Name: Wes Ingwersen

Branch: Life Cycle Decision Support Branch

Division: Land and Materials Management Division

Office: AWBERC 466A Phone: 513-569-7602

E-mail: ingwersen.wesley@epa.gov

Mail code: AWBERC 483

Street Address: 26 W. Martin Luther King Dr.

State, Zip: Cincinnati, OH 45268

#### I. PURPOSE:

The purpose of this work assignment is to continue the work under WA 01-27 to further the application of Sustainable Materials Management (SMM) through enhancements to the Sustainable Materials Management Prioritization Tool (SMM Tool) and underlying model as well as to engage stakeholders who can potentially use the SMM Tool to guide SMM-related decision making. The intended audience for this project is anyone interested in incorporating LCA into their decision making process to support SMM. This project supports programmatic needs related to our national all hazards homeland security responsibilities by enabling decision makers to consider how to use the nation's natural resources and materials, including water, in a manner that is safe and sustainable, as well as identify and address significant, yet hidden, pressures on and risks to natural resources. This work assignment complements work being performed under CSRA (EP-C-15-012) WA 02-20.

#### II. BACKGROUND:

As communities seek to become more sustainable, they are faced with making decisions related to infrastructure needs (water, building, roads, power), land use planning, transportation options, and waste management, all of which can affect climate change and water resources. Further, communities recognize that, through past decisions, minority populations and/or low-income populations tended to bear a disproportionate amount of adverse health and environmental effects. Thus, these "sustainable" decisions are to be made with the understanding that effective and sustainable environmental protection is linked to human health and quality-of-life, economic opportunity, and community vitality.

In order to conserve and protect water, land, and air, as well as yield equitable co-benefits throughout a community, materials must be sustainably managed throughout their life cycle (i.e., extracted, processed, manufactured, used, and managed at end-of-life, while preserving their optimal function). The processing and production of materials, products, and services in communities provide economic opportunity, but also represent sources of environmental emissions. EPA is pursuing sustainable materials management (SMM), which is a life cycle or systems approach to using and managing materials and considers the energy, water and land inputs, as well as the emissions and impacts at every life stage and in transportation of materials (from extraction, design and manufacturing, production, use, reuse and end-of-life management). SMM involves using and reusing materials effectively and efficiently across their life cycle, while minimizing the amount of materials used and all associated impacts. It is about understanding how we should source, use, and manage materials in order to promote economic growth, conserve natural capital, and minimize negative human health and environmental impacts

The public and private sectors, domestically and internationally, are in the midst of a transition toward decision-making based on holistic sustainability considerations. The scientific foundations required to support those considerations will need to overcome our present artificial compartmental constructs to enable cross-discipline, cross-origin merging of information. In the report Sustainable Materials Management: The Road Ahead (2009), EPA provided a definition for sustainable materials management (SMM) that transcends historical lenses based on single impact, single life-stage (e.g., use, waste), political boundaries, or efficiency. The report also included a life-cycle assessment of the United States consumption of goods and services to serve as an analytical framework for SMM. A draft life cycle-based tool, the SMM Prioritization Tool, was developed based on that framework to provide a faster, easier, and less costly way to incorporate life cycle information in decision-making, setting priorities, and engaging in strategic, system-level dialogue. This tool was migrated into the openLCA environment under EPA contract EP-12-C-000094. Under contract EP-C-15-012, work assignment 00-20, a new environmentally-extended input-output LCA model for the US (USEEIO) and a new multiregional model for the state of Georgia and rest of US (GA-USEEIO) were developed. Also, a Python script called the IO Model Builder was created to import those models into the openLCA environment, such that they could be used with openLCA or the SMM PrioritizationTool.

The Systems Analysis Branch (SAB) within the National Risk Management Research Laboratory (NRMRL) of US EPA's Office of Research and Development (ORD) is working with the Office of Land and Emergency Management (OLEM), the Office of Water (OW), the Office of Air and Radiation (OAR), and Regional Offices to develop the necessary models and tools to support the use of life cycle assessment (LCA) for engaging in SMM as a nation and within states and communities.

#### **III. QA REQUIREMENTS:**

Tasks 1 and 2 in this WA require the use of primary and/or secondary data and the development of software, as did work performed under WA 00-20. Consistent with the Agency's Quality Assurance (QA) requirements, the contractor prepared a Quality Assurance Project Plan (QAPP) for WA 00-20. Since no significant changes in data collection are expected between WA 00-20 and the work described in this work assignment, the QAPP for WA 02-20, G-STD-0030017-QP-1-0, approved 09/22/2015, shall be used for this work assignment.

#### IV. DETAILED TASK DESCRIPTION:

All direction under this WA will be provided as written technical direction from the WACOR, or Alternate WACOR as appropriate. If provided first as verbal technical direction to the contractor, it will be confirmed in writing within 5 calendar days, with a copy to the CL COR and the Contracting Officer (CO), and is subject to the limitations of the technical direction contract clause. Each initial deliverable shall be provided to the EPA WACOR in draft form for review and comment. The contractor shall incorporate WACOR review comments into revisions of the drafts. All drafts and final reports shall be approved by the WACOR.

The contractor shall perform the following tasks:

## Task 0: Work Plan (WP), Progress Evaluations, and Monthly Progress Reports

The contractor shall develop a work plan that describes how each task will be carried out. The work plan shall include a schedule, staffing plan, level of effort (LOE), and cost estimate for each task, the contractor's key assumptions on which staffing plan and budget are based, and qualifications of proposed staff. In addition, the work plan shall include the requirement that all electronic and information technology (EIT) and all EIT deliverables be Section 508 compliant in accordance with the policies referenced at <a href="http://www.epa.gov/accessibility/">http://www.epa.gov/accessibility/</a>. If a subcontractor(s) is proposed and subcontractors are outside the local metropolitan area, the contractor shall include information on plans to manage work and contract costs.

In addition, the contractor shall use the PQAPP prepared under Contract EP-C-15-012 for WA 00-20, as noted above, and ensure the quality of primary and/or secondary data and any software developed to complete these tasks. The monthly progress report shall indicate, in a separate QA section, whether significant QA issues have been identified and how they are being resolved.

In each monthly progress report, the contractor shall, at the introduction to the discussion of this WA, discuss actual progress toward achieving the purpose of this work assignment, including problems encountered, issues that may need to be resolved, and anticipated timing for completing the goals of the WA. The contractor shall provide an overview of contract projects, striving to implement efficiencies in performance when complimentary requirements are issued. The contractor shall assure that duplication of effort relative to other ongoing WA under this contract is not occurring.

Deliverables: Work plan, monthly progress and financial reports, and a revised PQAPP if required, containing the requirements and format specified by the WACOR.

## Task 1 – SMM Prioritization Tool Suite Updates

The SMM Prioritization Tool Suite is a web application that helps users identify potential environmental and socioeconomic issues associated with the production and consumption of goods and services for the US, for US states, and for organizations. The tool suite queries, processes and displays data using the USEPA USEEIO API. The tool suite was originally developed during periods of performance 0 and 1 of this contract under WA-20, 21 and 27, and following the QAPP G-STD-0030017-QP-1-0. The QAPP G-STD-0030017-QP-1-0, approved 09/22/2015, shall be used for this task. Under this task, the contractor shall perform updates to the interface and underlying code for the tool suite following EPA direction. EPA is collecting feedback on the tool suite from internal and external stakeholders, and will summarize and provide those to the contractor. The contractor shall develop, test, and stage the SMM Prioritization Tools by applying iterative processes utilizing the proposed Agile methodology and a frequent release cycle. The existing 508 compliance check for the tools should be updated following the final edits to assure that the software remains 508 compliant. All source code should be regularly updated in the USEPA SMM Tool GitHub repository and final source code shall be posted at the time of completion of the final versions of the tool suite approved by the WA-COR.

Deliverable: Functional prototypes (national, state, and company/organizational scales) and documented source code for the updated SMM Prioritization Tool Suite.

## Task 2 – Facilitation with Stakeholders in Georgia

The contractor shall provide facilitation support to assist in a face-to-face Georgia Stakeholder group discussion. The contractor support shall include facilitating the meeting and documenting the meeting proceedings and outcomes as directed by the EPA WACOR. Outcomes of the meeting shall include, but are not limited to, stakeholder feedback regarding results, utility, and value of the GA-USEEIO model for decision-making and/or policy development, and a summary of policy development activities and plans that arise during the meeting. This meeting will occur in government furnished meeting space and with government furnished equipment in Atlanta, GA.

The long-term outcome of the Georgia Pilot is to develop an approach that any state could follow, including assistance from EPA, to implement the SMM Vision. A key part of the approach will be

guidance on stakeholder engagement for SMM. Outcomes and stakeholder engagement findings from this face-to-face meeting shall inform a draft framework for guiding stakeholder engagement for SMM that was a deliverable under WA 01-20, Task 6.

Deliverables: A facilitated meeting with the GA pilot stakeholders and summary report describing the process and outcomes of the meeting.

## V. SCHEDULE/DELIVERABLES TABLE

Deliverable	Deliverable Date
SMM Tool Suite functional prototypes and	7/31/2018
source code	
Facilitated meeting and summary report	7/31/2018

#### **VI. REPORTING REQUIREMENTS**

As specified by the WACOR:

Monthly Progress Reports (including a progress evaluation discussion) Financial Reports

#### VII. GREEN MEETINGS AND CONFERENCES

The contractor shall follow the provision of EPA prescription 1523.703-1, *Acquisition of environmentally preferable meeting and conference services (May 2007),* for the use of off-site commercial facilities for an EPA event, whether the event is a meeting, conference, training session, or other purpose. Environmental preferability is defined at FAR 2.101, and shall be used when soliciting quotes or offers for meeting/conference services on behalf of the Agency.

#### VIII. CONFERENCES AND WORKSHOPS

The tasks under this work assignment do not require the acquisition of "off-site" facilities for conferences and meetings as defined in the IPN 12-05. AND the events associated with this work assignment are not covered by EPA Order 1900.3 and do not require EPA Form 5170.

The contractor shall immediately alert the WACOR to any anticipated event under the work assignment which may result in incurring an estimated \$20,000 or more cost, funded by EPA, specific to that event, meeting, training, etc. Those costs would include travel of both prime and consultant personnel, planning and facilitation costs, AV and rental of venue costs, etc. The EPA WACOR will then prepare for approval the internal paperwork for the event and will advise the contractor when appropriate signatures have been obtained. At that point, effort can proceed for the event. If the

event is being sponsored by another EPA organization, the organization providing the planning is responsible for the approval.

Any event which meets the definition of a "conference," with total net expenditures greater than \$20,000, is required to submit EPA Electronic Form 5170 and Form 5170-A (with cost estimates/actuals). In the case the workflow system is down and CORs require emergency approval, they can submit EPA Form 5170 (PDF) (2pp, 93K) (with cost estimates) to conference@epa.gov.

## IX. SOFTWARE APPLICATION AND ACCESSIBILITY (SECTION 508 REHABILITATION ACT AND AMENDMENTS)

Software Application files, if delivered to the Government, shall conform to the requirements relating to accessibility as detailed to the 1998 amendments to the Rehabilitation Act, particularly, but not limited to, § 1194.21 Software applications and operating systems and § 1194.22 Web-based intranet and internet information and applications. See: http://www.section508.gov/

Preferred text format: MS Word, 8.0 or higher (Office 2007 or higher)

Preferred presentation format: Power Point, Office 2007 or higher Preferred graphics format: Each graphic is an individual GIF file

Preferred portable format: Adobe Acrobat, version 6.0

The WACOR shall identify which of delivered products will require 508 compliance.

## QUALITY ASSURANCE SURVEILLANCE PLAN for WSD's Mission Support

## **Quality Assurance Surveillance Plan**

The requirements contained in this WA are considered performance-based, focusing on the Agency's desired results and outcomes. The contractor shall be responsible for determining the most effective means by which these requirements will be fulfilled. In order to fulfill the requirements, the contractor shall design innovative processes and systems that can deliver the required services in a manner that will best meet the Agency's performance objectives. This performance-based requirement represents a challenge to the contractor to develop and apply innovative and efficient approaches for achieving results and meeting or exceeding the performance objectives, measures, and standards described below. The Contractor's performance will be reflected in the positive or negative evaluation offered by the Agency in the Contractor Performance Evaluation (CPE) which is evaluated annually (per the "Contractor Performance Evaluation" clause in the contract). The WACOR shall submit a complete annual review of the areas outlined in the Quality Assurance Surveillance Plan (QASP), included in the

contract, which will then be utilized by the Contract Level Contracting Officer's Representative (CLCOR) Officer in preparing the overall evaluations submitted annually in response to the Contractor Performance Evaluation requirements in the contract.

EPA			United	United States Environmental Protection Agency Washington, DC 20460				Work Assignment Number 02-27			
				Work As	ssignment			Other	X Amend	ment Number:	
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Contract N	umber		Cor	ntract Period 08/	′01/2015 To	07/31/2	2018	Title of Work Assig	nment/SF Site Na	me	
EP-C-1	5-01	2	Bas	se	Option Period Nur	mber 2		SMM Applications			
Contractor			•			/ Section and pa	ragraph of Cor	ntract SOW			
	CSRA LLC 2.10, 3.1.3, 3.1.15, 3.1.16, 3.1.17										
Purpose: Work Assignment Work Assignment Close-Out								Period of Performance			
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		Work Plan	Approval					From 08/01/2017 To 07/31/2018			
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deliver	able.										
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SFO		7	Note:	To report additional ac	counting and appropri	ations date use l	EPA Form 190	0-69A.			
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Work Assignment Manager Name Priscilla Halloran							Brai	Branch/Mail Code:			
The state of the s								Phone Number: 703-308-8802			
(Signature) (Date)						FAX	FAX Number:				
Project Officer Name Nancy Parrotta							Brai	Branch/Mail Code:			
							Pho	Phone Number: 202-564-5260			
(Signature) (Date)							FAX	FAX Number:			
Other Agency Official Name							Brai	Branch/Mail Code:			
						Pho	Phone Number:				
(Signature) (Date)					FAX	FAX Number:					
Contracting Official Name Donna Reinhart						Brai	Branch/Mail Code:				
Donna Reinhart							Pho	Phone Number: 513-487-2114			
	-	(Signa			(Date	<del>, 4/0/18</del>	— FAX	Number:			

## PERFORMANCE WORK STATEMENT (PWS)

Contract No. EP-C-15-012
Work Assignment No. 02-27
Period of Performance: 8/1/17-7/31/18
Amendment #1

Title: Sustainable Materials Management Applications

Contract PWS Sections: 2.10, 3.1.3, 3.1.15, 3.1.16, 3.1.17

WACOR: Name: Priscilla Halloran

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Office: Office of Resource Conservation and Recovery

Phone: 703-308-8802

E-mail: halloran.priscilla@epa.gov

Mail code: 5306P

Street Address: 1200 Pennsylvania Ave., NW

City, State, Zip: Washington, DC 20460

Alt WACOR: Name: Wes Ingwersen

Branch: Life Cycle Decision Support Branch

Division: Land and Materials Management Division

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## I. PURPOSE:

The purpose of this work assignment is to continue the work under WA 01-27 to further the application of Sustainable Materials Management (SMM) through enhancements to the Sustainable Materials Management Prioritization Tool (SMM Tool) and underlying model as well as to engage stakeholders who can potentially use the SMM Tool to guide SMM-related decision making. The intended audience for this project is anyone interested in incorporating LCA into their decision making process to support SMM. This project supports programmatic needs related to our national all hazards homeland security responsibilities by enabling decision makers to consider how to use the nation's natural resources and materials, including water, in a manner that is safe and sustainable, as well as identify and address significant, yet hidden, pressures on and risks to natural resources. This work assignment complements work being performed under CSRA (EP-C-15-012) WA 02-20.

## II. BACKGROUND:

As communities seek to become more sustainable, they are faced with making decisions related to infrastructure needs (water, building, roads, power), land use planning, transportation options, and waste management, all of which can affect climate change and water resources. Further, communities recognize that, through past decisions, minority populations and/or low-income populations tended to bear a disproportionate amount of adverse health and environmental effects. Thus, these "sustainable" decisions are to be made with the understanding that effective and sustainable environmental protection is linked to human health and quality-of-life, economic opportunity, and community vitality.

In order to conserve and protect water, land, and air, as well as yield equitable co-benefits throughout a community, materials must be sustainably managed throughout their life cycle (i.e., extracted, processed, manufactured, used, and managed at end-of-life, while preserving their optimal function). The processing and production of materials, products, and services in communities provide economic opportunity, but also represent sources of environmental emissions. EPA is pursuing sustainable materials management (SMM), which is a life cycle or systems approach to using and managing materials and considers the energy, water and land inputs, as well as the emissions and impacts at every life stage and in transportation of materials (from extraction, design and manufacturing, production, use, reuse and end-of-life management). SMM involves using and reusing materials effectively and efficiently across their life cycle, while minimizing the amount of materials used and all associated impacts. It is about understanding how we should source, use, and manage materials in order to promote economic growth, conserve natural capital, and minimize negative human health and environmental impacts

The public and private sectors, domestically and internationally, are in the midst of a transition toward decision-making based on holistic sustainability considerations. The scientific foundations required to support those considerations will need to overcome our present artificial compartmental constructs to enable cross-discipline, cross-origin merging of information. In the report Sustainable Materials Management: The Road Ahead (2009), EPA provided a definition for sustainable materials management (SMM) that transcends historical lenses based on single impact, single life-stage (e.g., use, waste), political boundaries, or efficiency. The report also included a life-cycle assessment of the United States consumption of goods and services to serve as an analytical framework for SMM. A draft life cycle-based tool, the SMM Prioritization Tool, was developed based on that framework to provide a faster, easier, and less costly way to incorporate life cycle information in decision-making, setting priorities, and engaging in strategic, system-level dialogue. This tool was migrated into the openLCA environment under EPA contract EP-12-C-000094. Under contract EP-C-15-012, work assignment 00-20, a new environmentally-extended input-output LCA model for the US (USEEIO) and a new multiregional model for the state of Georgia and rest of US (GA-USEEIO) were developed. Also, a Python script called the IO Model Builder was created to import those models into the openLCA environment, such that they could be used with openLCA or the SMM PrioritizationTool.

The Systems Analysis Branch (SAB) within the National Risk Management Research Laboratory (NRMRL) of US EPA's Office of Research and Development (ORD) is working with the Office of Land and Emergency Management (OLEM), the Office of Water (OW), the Office of Air and Radiation (OAR), and Regional Offices to develop the necessary models and tools to support the use of life cycle assessment (LCA) for engaging in SMM as a nation and within states and communities.

#### **III. QA REQUIREMENTS:**

Tasks 1 and 2 in this WA require the use of primary and/or secondary data and the development of software, as did work performed under WA 00-20. Consistent with the Agency's Quality Assurance (QA) requirements, the contractor prepared a Quality Assurance Project Plan (QAPP) for WA 00-20. Since no significant changes in data collection are expected between WA 00-20 and the work described in this work assignment, the QAPP for WA 02-20, G-STD-0030017-QP-1-0, approved 09/22/2015, shall be used for this work assignment.

#### IV. DETAILED TASK DESCRIPTION:

All direction under this WA will be provided as written technical direction from the WACOR, or Alternate WACOR as appropriate. If provided first as verbal technical direction to the contractor, it will be confirmed in writing within 5 calendar days, with a copy to the CL COR and the Contracting Officer (CO), and is subject to the limitations of the technical direction contract clause. Each initial deliverable shall be provided to the EPA WACOR in draft form for review and comment. The contractor shall incorporate WACOR review comments into revisions of the drafts. All drafts and final reports shall be approved by the WACOR.

The contractor shall perform the following tasks:

## Task 0: Work Plan (WP), Progress Evaluations, and Monthly Progress Reports

The contractor shall develop a work plan that describes how each task will be carried out. The work plan shall include a schedule, staffing plan, level of effort (LOE), and cost estimate for each task, the contractor's key assumptions on which staffing plan and budget are based, and qualifications of proposed staff. In addition, the work plan shall include the requirement that all electronic and information technology (EIT) and all EIT deliverables be Section 508 compliant in accordance with the policies referenced at <a href="http://www.epa.gov/accessibility/">http://www.epa.gov/accessibility/</a>. If a subcontractor(s) is proposed and subcontractors are outside the local metropolitan area, the contractor shall include information on plans to manage work and contract costs.

In addition, the contractor shall use the PQAPP prepared under Contract EP-C-15-012 for WA 00-20, as noted above, and ensure the quality of primary and/or secondary data and any software developed to

complete these tasks. The monthly progress report shall indicate, in a separate QA section, whether significant QA issues have been identified and how they are being resolved.

In each monthly progress report, the contractor shall, at the introduction to the discussion of this WA, discuss actual progress toward achieving the purpose of this work assignment, including problems encountered, issues that may need to be resolved, and anticipated timing for completing the goals of the WA. The contractor shall provide an overview of contract projects, striving to implement efficiencies in performance when complimentary requirements are issued. The contractor shall assure that duplication of effort relative to other ongoing WA under this contract is not occurring.

Deliverables: Work plan, monthly progress and financial reports, and a revised PQAPP if required, containing the requirements and format specified by the WACOR.

#### Task 1 – SMM Prioritization Tool Suite Updates

The SMM Prioritization Tool Suite is a web application that helps users identify potential environmental and socioeconomic issues associated with the production and consumption of goods and services for the US, for US states, and for organizations. The tool suite queries, processes and displays data using the USEPA USEEIO API. The tool suite was originally developed during periods of performance 0 and 1 of this contract under WA-20, 21 and 27, and following the QAPP G-STD-0030017-QP-1-0. The QAPP G-STD-0030017-QP-1-0, approved 09/22/2015, shall be used for this task. Under this task, the contractor shall perform updates and improvements or adjustments in functionality such as disabling selecting years, changing default indicators, adding indicators, and enhancing graphics to the interface and underlying code for the tool suite following EPA direction. EPA is collecting feedback on the tool suite from internal and external stakeholders, and will summarize and provide those to the contractor. In addition, a version 1 of the SMM Prioritization Tool Suite will undergo an internal OPA review to determine if it is ready to be posted to EPA's website and what changes are needed in order to post. The contractor shall develop, test, and stage the SMM Prioritization Tools by applying iterative processes utilizing the proposed Agile methodology and a frequent release cycle. The existing 508 compliance check for the tools should be updated following the final edits to assure that the software remains 508 compliant. All source code should be regularly updated in the USEPA SMM Tool GitHub repository and final source code shall be posted at the time of completion of the final version 1 of the tool suite, which will be made publically available, approved by the WA-COR.

Deliverables: Functional prototypes (national, state, and company/organizational scales) and documented source code for the updated SMM Prioritization Tool Suite. Version 1 of the SMM Prioritization Tool Suite that can be posted to EPA's website.

## Task 2 – Facilitation with Stakeholders in Georgia

The contractor shall provide facilitation support to assist in a face-to-face Georgia Stakeholder group discussion. The contractor support shall include facilitating the meeting and documenting the

meeting proceedings and outcomes as directed by the EPA WACOR. Outcomes of the meeting shall include, but are not limited to, stakeholder feedback regarding results, utility, and value of the GA-USEEIO model for decision-making and/or policy development, and a summary of policy development activities and plans that arise during the meeting. This meeting will occur in government furnished meeting space and with government furnished equipment in Atlanta, GA.

The long-term outcome of the Georgia Pilot is to develop an approach that any state could follow, including assistance from EPA, to implement the SMM Vision. A key part of the approach will be guidance on stakeholder engagement for SMM. Outcomes and stakeholder engagement findings from this face-to-face meeting shall inform a draft framework for guiding stakeholder engagement for SMM that was a deliverable under WA 01-20, Task 6.

Deliverables: A facilitated meeting with the GA pilot stakeholders and summary report describing the process and outcomes of the meeting.

## V. SCHEDULE/DELIVERABLES TABLE

Deliverable	Deliverable Date
SMM Tool Suite functional prototypes and	7/31/2018
source code	
Version 1 of the SMM Prioritization Tool	7/31/2018
Suite	
Facilitated meeting and summary report	7/31/2018

#### **VI. REPORTING REQUIREMENTS**

As specified by the WACOR:

Monthly Progress Reports (including a progress evaluation discussion) Financial Reports

#### VII. GREEN MEETINGS AND CONFERENCES

The contractor shall follow the provision of EPA prescription 1523.703-1, *Acquisition of environmentally preferable meeting and conference services (May 2007),* for the use of off-site commercial facilities for an EPA event, whether the event is a meeting, conference, training session, or other purpose. Environmental preferability is defined at FAR 2.101, and shall be used when soliciting quotes or offers for meeting/conference services on behalf of the Agency.

#### VIII. CONFERENCES AND WORKSHOPS

The tasks under this work assignment do not require the acquisition of "off-site" facilities for

conferences and meetings as defined in the IPN 12-05. AND the events associated with this work assignment are not covered by EPA Order 1900.3 and do not require EPA Form 5170.

The contractor shall immediately alert the WACOR to any anticipated event under the work assignment which may result in incurring an estimated \$20,000 or more cost, funded by EPA, specific to that event, meeting, training, etc. Those costs would include travel of both prime and consultant personnel, planning and facilitation costs, AV and rental of venue costs, etc. The EPA WACOR will then prepare for approval the internal paperwork for the event and will advise the contractor when appropriate signatures have been obtained. At that point, effort can proceed for the event. If the event is being sponsored by another EPA organization, the organization providing the planning is responsible for the approval.

Any event which meets the definition of a "conference," with total net expenditures greater than \$20,000, is required to submit EPA Electronic Form 5170 and Form 5170-A (with cost estimates/actuals). In the case the workflow system is down and CORs require emergency approval, they can submit EPA Form 5170 (PDF) (2pp, 93K) (with cost estimates) to conference@epa.gov.

## IX. SOFTWARE APPLICATION AND ACCESSIBILITY (SECTION 508 REHABILITATION ACT AND AMENDMENTS)

Software Application files, if delivered to the Government, shall conform to the requirements relating to accessibility as detailed to the 1998 amendments to the Rehabilitation Act, particularly, but not limited to, § 1194.21 Software applications and operating systems and § 1194.22 Web-based intranet and internet information and applications. See: http://www.section508.gov/

Preferred text format: MS Word, 8.0 or higher (Office 2007 or higher)

Preferred presentation format: Power Point, Office 2007 or higher Preferred graphics format: Each graphic is an individual GIF file

Preferred portable format: Adobe Acrobat, version 6.0

The WACOR shall identify which of delivered products will require 508 compliance.

# QUALITY ASSURANCE SURVEILLANCE PLAN for WSD's Mission Support

#### **Quality Assurance Surveillance Plan**

The requirements contained in this WA are considered performance-based, focusing on the Agency's desired results and outcomes. The contractor shall be responsible for determining the most effective

means by which these requirements will be fulfilled. In order to fulfill the requirements, the contractor shall design innovative processes and systems that can deliver the required services in a manner that will best meet the Agency's performance objectives. This performance-based requirement represents a challenge to the contractor to develop and apply innovative and efficient approaches for achieving results and meeting or exceeding the performance objectives, measures, and standards described below. The Contractor's performance will be reflected in the positive or negative evaluation offered by the Agency in the Contractor Performance Evaluation (CPE) which is evaluated annually (per the "Contractor Performance Evaluation" clause in the contract). The WACOR shall submit a complete annual review of the areas outlined in the Quality Assurance Surveillance Plan (QASP), included in the contract, which will then be utilized by the Project Officer in preparing the overall evaluations submitted annually in response to the Contractor Performance Evaluation requirements in the contract.